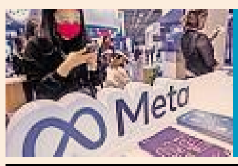
FINANCIAL TIMES

THURSDAY 29 DECEMBER 2022

INTERNATIONAL NEWSPAPER OF THE YEAR

USA $2.50 Canada C$3.00



It's time to unlearn the lessons of Big Tech
BROOKE MASTERS, PAGE 15

Immerse yourself in the real world of fiction
JEMIMA KELLY, PAGE 14

Ethnic divide
Fears of strife rise in Kosovo

Bojan Slavkovic/AP

A pedestrian passes through a barricade of trucks loaded with stones on a street in a Serb-dominated area of the ethnically divided town of Mitrovica, Kosovo.

Kosovo closed its main border crossing with Serbia yesterday as tensions between Belgrade and its former province reached new highs, threatening an outbreak of conflict in the Balkans.

Aleksandar Vučić, Serbia's president, has accused Kosovo of preparing to attack ethnic Serbs in the north of the country and vowed to "protect our people [in Kosovo] and preserve Serbia".

Belgrade has said that it will never recognise Kosovo, which unilaterally broke away from Serbia in 2008, as a sovereign country. Both sides appear serious on the possible use of force to resolve the issues, analysts warn, with the international community's control over the situation weakening.

Border crossing closed page 2

Exxon sues Brussels in effort to block €25bn windfall tax on oil companies

- EU exceeded authority, says group
- Levy's viability under threat
- Future Europe projects in doubt

DEREK BROWER — NEW YORK
ALICE HANCOCK — BRUSSELS
TOM WILSON — LONDON

ExxonMobil has sued the EU in a bid to force the bloc to scrap a windfall tax on oil groups, arguing that Brussels exceeded its legal authority by imposing the levy.

The lawsuit is the most significant response to the tax from an oil sector that has been targeted by western governments after a surge in energy prices prompted by Russia's invasion of Ukraine. The suit threatens the viability of a levy that the European Commission said would raise €25bn "to help bring down energy bills".

Exxon's German and Dutch units filed the lawsuit yesterday at the European General Court in Luxembourg. It challenges the Council of the EU's legal authority to impose a tax — a power historically reserved for sovereign countries — and its use of emergency powers to secure member states' approval for the measure.

Casey Norton, of Exxon, said the US supermajor recognised that high energy costs were "weighing heavily on families and businesses" but the levy was "counterproductive" and would "undermine investor confidence, discourage investment and increase reliance on imported energy".

> 'The levy would be counterproductive and discourage investment'
> Casey Norton, ExxonMobil

Exxon had spent $3bn on European refining projects in the past 10 years, increasing output "at a time when Europe struggles to reduce its energy imports from Russia", Norton said.

Exxon was now weighing "future multibillion-euro investments" in the continent, Norton added.

"Whether we invest here primarily depends on how attractive and globally competitive Europe will be."

The so-called solidarity contribution was one of several measures agreed by the council in September to ease the burden of energy prices, with the money raised distributed to hard-hit consumers or invested in clean energy supply.

Other measures included a cap on revenue from low-cost power generation. Exxon was not opposing those, Norton said.

If the European General Court decides to rule on Exxon's suit, any judgment would be subject to appeal at the European Court of Justice, meaning proceedings are likely to stretch through much of next year.

The tax takes effect from December 31, with a levy of at least 33 per cent on any taxable profits in 2022-23 that are 20 per cent or more above average profits from 2018-2021.

Exxon, one of the largest petroleum suppliers in Europe, said in a November that its liability under the levy could amount to $2bn to the end of 2023. The company generated record global profits of almost $20bn in the third quarter.

Soaring oil company profits have provoked anger as surging fuel prices fan rampant inflation and threaten to tip economies into recession. The EU's levy was echoed in November by the UK, which increased its windfall tax on oil and gas producers from 25 per cent to 35 per cent and extended it until 2028.

Windfall taxes have been challenged in Italy where a case brought by ERG, a windpower company, was dismissed by a court last month. The Spanish oil and gas group Cepsa has also threatened to sue Madrid over a similar levy.

Agathe Bounfour, oil lead at the NGO Transport & Environment, said Exxon's suit was "an attempt at intimidation".

Additional reporting by Henry Foy

Fuel crisis threatens output page 2
European gas prices at low page 9

Briefing

▸ UK banks take steps to limit home repossessions
Some of Britain's largest lenders have agreed measures with the government to help borrowers as they brace for a surge in late mortgage payments.— PAGE 6

▸ Europe crunch forecast
The eurozone's economy is set to shrink in 2023 as high inflation and energy shortages hit output and trigger labour market woes, a key FT survey reports.— PAGE 2

▸ China elites turn to Pfizer
As a fresh Covid-19 wave sweeps the nation, China's top tier is stockpiling Pfizer's treatment and giving it away to curry favour with business associates.— PAGE 4

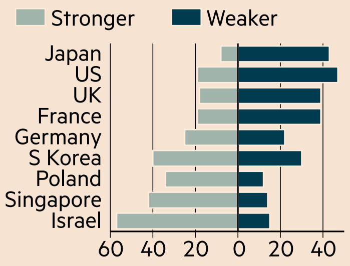
▸ Mastodon shuns VC cash
The rival to Twitter has rejected several investment offers recently from US venture capital groups, as the platform's founder vowed to retain its non-profit status.— PAGE 6

▸ Gas falls to 10-month low
Europe's gas prices have hit their lowest level since before Russia invaded Ukraine, as warmer weather helped the continent to replenish its reserves.— PAGE 9

▸ Big coal miners celebrate
The world's biggest miners tripled their profits in 2022 to total more than $97bn, defying expectations for an industry that was thought to be in terminal decline.— PAGE 6

Datawatch

Global influence
% who think their country's influence in the world is getting ...



Source: Pew Research Center (2022)

The US is among those countries where more adults say their nation's influence is weakening rather than growing stronger. Israel, Singapore and South Korea are those that stand out in terms of the perception of growing national influence.

Italy imposes Covid testing for Chinese arrivals as west responds to virus surge

AMY KAZMIN — ROME

Italy is to test all passengers arriving from China for coronavirus, the first western country to impose restrictions after the abrupt end of Beijing's zero-Covid policy prompted a surge in Chinese cases.

Orazio Schillaci, Italy's health minister, announced the move yesterday, saying it was "essential to ensure surveillance and detection of possible variants of the virus in order to protect the Italian population". Japan and India have also imposed new requirements for Chinese arrivals, in anticipation of a wave of visitors after president Xi Jinping's government scrapped what was left of a zero-Covid regime that had closed it off from the world for almost three years.

China is in the grip of the virus, with tens of millions of infections daily. At the same time, the end of zero-Covid restrictions has sparked demand for international travel. Booking site Trip.com said Chinese outbound bookings were up more than 250 per cent on Tuesday compared with a day earlier.

Italy is desperate to avoid a repeat of March 2020, when it was the first European country to suffer a serious outbreak of a virus that went on to sweep across the world, killing millions.

Although Rome lifted mandatory testing this year, the prospect of an influx of tourists potentially carrying the virus has led to the reinstatement. Schillaci gave no details of what would happen to people who tested positive.

Rome's move sparked calls for other countries to follow its lead. Juergen Hardt, foreign affairs spokesman for Germany's opposition Christian Democrats, demanded that flights are suspended. "Only when we're sure that there's no threat of a new, dangerous mutation out of China should we resume flight connections", he told media group RND yesterday.

Berlin has ruled out a flight ban. Authorities were "keeping a very close eye on the situation in China", the health ministry said.

In the UK, Downing Street said restrictions for travellers arriving from China were "not something we are looking at". The US is weighing measures for travellers arriving from China, say reports that first appeared on Bloomberg. The White House and the Centers for Disease Control and Prevention did not respond to requests for comment.

Additional reporting by Giuliana Ricozzi, Stefania Palma, Guy Chazan and Jasmine Cameron-Chileshe

Pfizer drug stockpiled page 4

Biden strengthened after upbeat end to tough year

Joe Biden has confounded his critics by capping what was a difficult year — contending with the Ukraine war, high inflation and Democrat infighting — with a series of gains. A better than expected midterm polls performance, the release from Russian detention of a US basketball star and a multibillion-dollar chipmaking investment in the swing state of Arizona have put Biden, 80, in a strong position when deciding whether to seek re-election in 2024.

String of gains ▸ PAGE 3

Subscribe In print and online

www.ft.com/subsusa
Tel: 1 800 628 8088
For the latest news go to
www.ft.com

© THE FINANCIAL TIMES LTD 2022
No: 41,208 ★

Printed in London, Liverpool, Glasgow, Dublin, Frankfurt, Milan, Madrid, New York, Chicago, San Francisco, Tokyo, Hong Kong, Singapore, Seoul, Dubai

World Markets

STOCK MARKETS

	Dec 28	Prev	%chg
S&P 500	3797.77	3829.25	-0.82
Nasdaq Composite	10237.63	10353.23	-1.12
Dow Jones Ind	33012.41	33241.56	-0.69
FTSEurofirst 300	1689.12	1691.10	-0.12
Euro Stoxx 50	3809.64	3832.89	-0.61
FTSE 100	7497.19	7473.01	0.32
FTSE All-Share	4096.54	4083.66	0.32
CAC 40	6510.49	6550.66	-0.61
Xetra Dax	13925.60	13995.10	-0.50
Nikkei	26340.50	26447.87	-0.41
Hang Seng	19898.91	19593.06	1.56
MSCI World $	2600.94	2605.48	-0.17
MSCI EM $	959.39	956.48	0.30
MSCI ACWI $	605.24	605.97	-0.12
FT Wilshire 2500	4966.12	4987.31	-0.42
FT Wilshire 5000	38774.64	38943.44	-0.43

CURRENCIES

Pair	Dec 28	Prev	Pair	Dec 28	Prev
$/€	1.062	1.065	€/$	0.942	0.939
$/£	1.204	1.202	£/$	0.831	0.832
£/€	0.882	0.886	€/£	1.133	1.129
¥/$	134.225	133.350	¥/€	142.527	142.011
¥/£	161.534	160.259	£ index	77.975	78.401
SFr/€	0.986	0.989	SFr/£	1.117	1.116

CRYPTO

	Dec 28	Prev	%chg
Bitcoin ($)	16611.05	16698.94	-0.53
Ethereum	1193.30	1210.85	-1.45

COMMODITIES

	Dec 28	Prev	%chg
Oil WTI $	78.13	79.53	-1.76
Oil Brent $	83.16	84.68	-1.79
Gold $	1800.70	1817.55	-0.93

GOVERNMENT BONDS

Yield (%)	Dec 28	Prev	Chg
US 2 yr	4.37	4.42	-0.05
US 10 yr	3.87	3.84	0.03
US 30 yr	3.95	3.93	0.02
UK 2 yr	3.63	3.66	-0.02
UK 10 yr	3.66	3.62	0.04
UK 30 yr	3.92	3.89	0.03
JPN 2 yr	0.04	0.04	0.00
JPN 10 yr	0.45	0.46	-0.01
JPN 30 yr	1.57	1.54	0.03
GER 2 yr	2.65	2.60	0.04
GER 10 yr	2.49	2.38	0.11
GER 30 yr	2.41	2.26	0.14

Prices are latest for edition
Data provided by Morningstar

A Nikkei Company

VISIT…

LANZAROTE Caliente.com

INTERNATIONAL

Energy markets

Fuel crisis threatens eurozone contraction

FT poll finds economists expect shortages to take toll on output and jobs

MARTIN ARNOLD AND ALEXANDER VLADKOV — FRANKFURT

The eurozone economy is set to shrink next year as high inflation and potential energy shortages drag down output and trigger a reversal in the fortunes of the labour market, according to a Financial Times poll of economists.

Almost 90 per cent of the 37 economists surveyed said they thought the region was already in recession and most forecast gross domestic product would contract over next year.

"Gas markets in Europe remain a key risk," said Chiara Zangarelli, an economist at Morgan Stanley. "Additional supply disruptions or a particularly cold winter could lead to renewed tensions and prices rising again, forcing another round of . . . demand destruction."

Most economists thought Europe was past the worst of its energy crisis, sparked by Russia's invasion of Ukraine. A mild autumn allowed natural gas storage facilities to remain near to full.

However, many fear the prospect of rationing could return next year, particularly if this winter is unusually cold, depleting supplies, or if gas flows from Russia are reduced further during 2023.

"The tail risk of gas rationing has likely been avoided this winter, but the question of energy supply for the next winter is still open," said Sylvain Broyer, chief economist for Europe Middle East and Africa at S&P Global Ratings.

European countries have managed to lower their dependence on Russian gas imports by turning to Norway, the US and the Middle East, along with switching to alternative energy sources. But economists warn that, without Russian supplies, it will be much harder to refill Europe's crucial gas storage facilities ahead of next winter.

"Gas storage levels are dropping quickly now," said Carsten Brzeski, head of macro research at ING Bank. "There is still the risk of an energy supply crisis this winter. Moreover, next winter will be even more challenging."

The downturn, combined with much higher mortgage costs across Europe, was also expected to trigger a sharp reversal in the region's housing market. The European Central Bank raised rates by 2.5 percentage points over the course of 2022 and is expected to increase borrowing costs further in 2023.

On average, economists forecast eurozone residential prices would fall 4.7 per cent next year. Maria Demertzis, senior fellow at the Bruegel think-tank, said prices will not continue to rise "if we are in a recession" and interest rates rise.

The respondents forecast the eurozone would shrink by just under 0.01 per cent next year. That is more pessimistic than the European Commission and the ECB, which predicted the bloc's economy would grow by 0.3 per cent and 0.5 per cent next year respectively.

Marcello Messori, an economics professor at Luiss University in Rome, said further ECB interest rate rises to counter the "excessive inflation" caused by the energy supply shock over Russia's invasion of Ukraine would "lead to a severe recession in the euro area".

Eurozone inflation is expected to stay above the ECB's 2 per cent target for at least two more years, the economists added. On average, those polled expect prices to rise by just over 6 per cent next year and almost 2.7 per cent in 2024.

Earlier this month, the ECB predicted price growth would average 6.3 per cent next year and 3.4 per cent in 2024.

Wage growth is expected to be 4.4 per cent next year, the poll found, below the 5.2 per cent the ECB forecast. Unemployment was predicted to rise from a record eurozone low of 6.5 per cent in October to 7.1 per cent late next year.

Power. Security of supply

Poland takes steps to enter nuclear energy age

Two reactor projects are envisioned as part of push to reduce reliance on Russia

RAPHAEL MINDER AND BARBARA ERLING
WARSAW

After decades of unsuccessful attempts to generate nuclear power, Poland has launched two projects to build reactors with foreign partners.

Westinghouse of the US would build one plant, and KHNP of South Korea had signed a letter of intent for another, Mateusz Morawiecki, prime minister, announced in October.

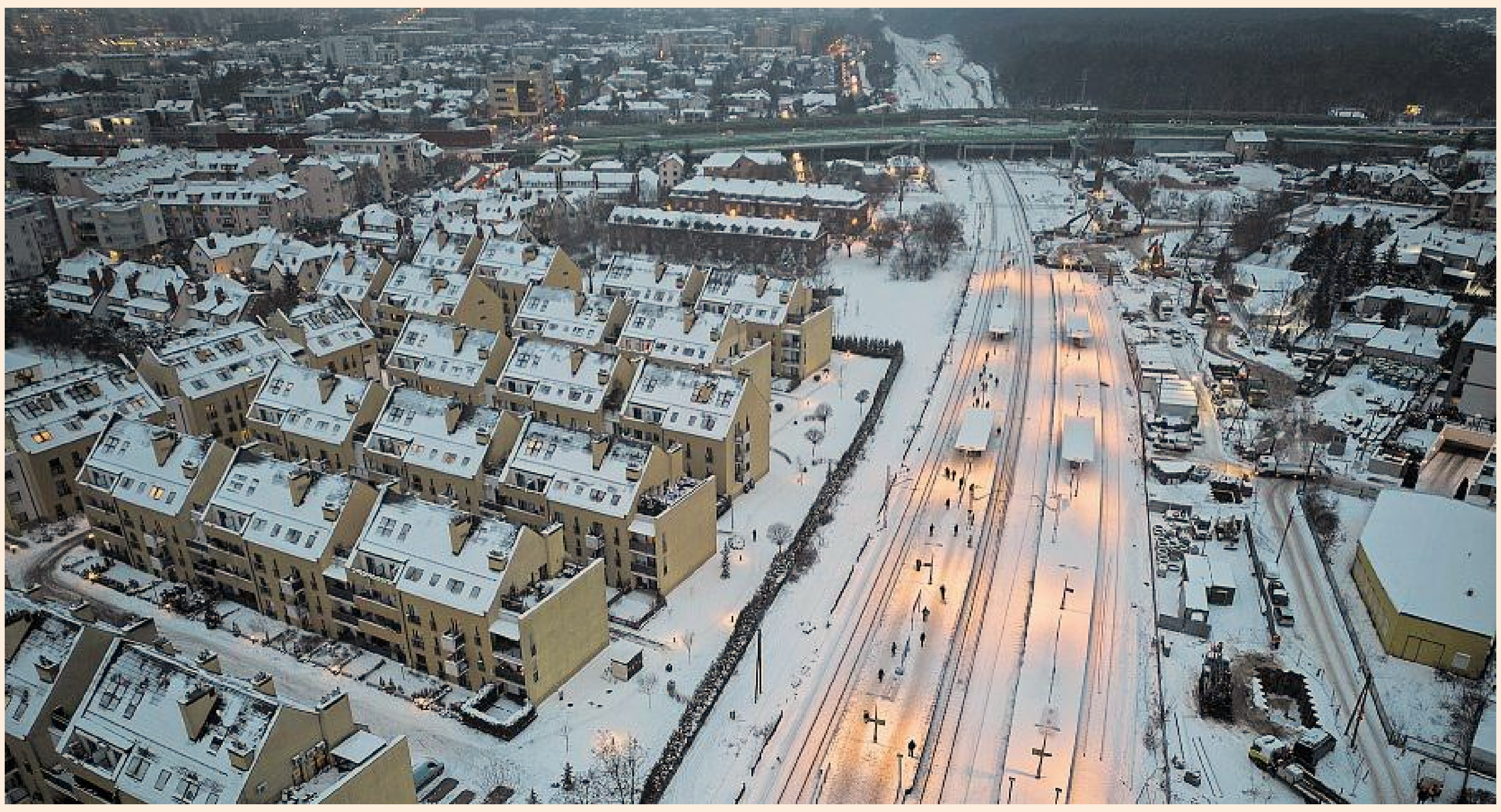
The projects are part of Poland's push to guarantee energy independence from Russia as it struggles with soaring power costs since the Kremlin's all-out attack on Ukraine in February.

Other countries are also embracing nuclear power in response to Russia's aggression, adding a national security dimension to the promotion of nuclear power as a zero-emission source of energy. The UK plans to start work on eight reactors by 2030 while Germany and Belgium have extended the life of some reactors beyond their original shutdown dates.

"We are seeing a vast change in the Polish as well as European mindset concerning nuclear energy," said Adam Juszczak, energy expert at the Polish Economic Institute, a think-tank. "Everybody is now fully aware that we have to replace fossil fuels, especially what we imported from Russia."

Nuclear power has been an unfulfilled Polish ambition since the early 1970s, when the then Communist government chose a location for its first nuclear plant. Construction of the Soviet-designed Żarnowiec facility started in 1982 but was abandoned because of a funding shortfall and the protests that followed the 1986 Chernobyl disaster in neighbouring Ukraine. After the collapse of the Soviet Union, different Polish leaders made pledges to restart the programme.

In contrast, other former Communist nations built nuclear reactors and are now adding more. Slovakia, where the first reactor started operating 50 years ago, is finishing construction of a third unit at its Mochovce plant. Hungary's government in August gave Russia's Rosatom the go-ahead to build two new reactors at its Paks plant.



Home fires: a railway station in suburban Warsaw. Coal generates 70 per cent of Poland's electricity
STR/NurPhoto/Getty Images

"Having worked in nuclear energy for 60 years, I know this decision should have been taken a long time ago," said Andrzej Strupczewski, a professor from Poland's National Centre for Nuclear Research. "Everyone around us has nuclear power plants."

Poland's main political parties favour nuclear power, as do the majority of voters, who are now more worried about spiralling energy bills than nuclear safety, according to opinion polls.

Depending on how many reactors are built, nuclear energy should provide 25-40 per cent of Poland's power production in 20 years, according to the Polish Economic Institute.

Still, ahead of parliamentary elections next autumn, the nuclear push has been criticised as a "PR stunt" by environmentalists. "Poland's nuclear programme has a long history of missed deadlines," said Paweł Szypulski, programme director at Greenpeace Poland. The Warsaw government's plan was simply aimed at showing that "they are capable of controlling the energy crisis". Szypulski urged the administration to look instead to wind energy and stop "holding back green technologies, which could rapidly decarbonise our economy". Coal generates 70 per cent of Poland's electricity production.

Poland's nuclear projects face big challenges, notably over funding. Warsaw is trying to convince Westinghouse to take a significant shareholding in the new plant, while KHNP is entering a complicated partnership with Zygmunt Solorz-Zak, a Polish billionaire.

Given that nuclear projects often suffer delays and cost overruns, Poland had unveiled "very ambitious plans, especially for a country that has no experience in building modern nuclear plants nor has trained staff", said Marcin Jasólski, a nuclear energy researcher from Gdańsk University of Technology.

Whatever the challenge, nuclear power was now a "must", said Beata Daszyńska-Muzyczka, president of the BGK Polish development bank. "This is about Poland's ability to grow and offer businesses that invest here a stable, clean and cheap source of energy."

> 'Having worked in nuclear energy for 60 years, I know this decision should have been taken a long time ago'
> Andrzej Strupczewski, National Centre for Nuclear Research

Warsaw is also trumpeting nuclear as a clear commitment to halting global warming, an issue that previously ranked lower on its list of priorities. Under EU pressure to meet a 2050 target for carbon neutrality, Warsaw negotiated last year with its mining industry to shut all coal mines by 2049.

In the northern town of Choczewo, proposed site of the Westinghouse plant, feelings are mixed. Sylwia Garska-Chmarycz, a chef, said she welcomed the jobs the plant would create, as well as the choice of "way more advanced" US technology than anything Poland previously envisaged. But Jolanta Zwierzchowska, a travel operator who has organised protests against the plans, said: "If the plant is built here, no tourists will come."

Wiesław Gębka, Choczewo's mayor, said he understood concerns about tourism and the environment but felt the focus should be on the economic benefits. The one certainty about the arrival of nuclear power, he added, was that a "revolution is about to hit".

Balkans

Kosovo closes main border crossing as tensions with Serbia rise

MARTON DUNAI — BUDAPEST

Kosovo closed its biggest border crossing with Serbia yesterday as tensions between Belgrade and its former province reached new levels, threatening an outbreak of conflict in the Balkans.

Serbia put the military forces it has sent to the border with Kosovo on the highest combat alert and Belgrade threatened to step in to defend ethnic Serbs if international peacekeepers could not defuse the dispute, which started over the issuing of vehicle licence plates by Pristina.

Serbian president Aleksandar Vučić on Tuesday accused Kosovo of preparing to attack ethnic Serbs in the north of the country and vowed to "protect our people [in Kosovo] and preserve Serbia". Protests by ethnic Serbs against Pristina's authority, including walkouts in government offices and the installation of roadblocks in and around border cities, have continued for weeks.

Belgrade has said it will never recognise its former province, which unilaterally broke away from Serbia in 2008, as a sovereign country. Both sides appear serious about the possible use of force to resolve the issues, analysts say, with the international community's control over the situation weakening.

"The chance for confrontation is real," said Milos Damnjanovic, a regional expert with the BIRN consultancy in Belgrade. "[Kosovo premier Albin] Kurti appears to think the he can use force to impose integration on Kosovo Serbs without giving anything in return. The risk is doubly real because Belgrade is backing northern Serbs to resist being integrated on Kurti's terms."

The EU and US yesterday issued a joint statement calling for "maximum restraint" and actions to de-escalate the "continued tense situation".

Both the EU and US were working with Vučić and Kurti "to find a political solution in order to defuse the tensions and agree on the way forward in the interest . . . of all communities", said spokespersons for the EU's foreign policy arm and the US state department.

After months of talks, a solution was deferred until next year. But after hundreds of ethnic Serb police and government workers quit their jobs rather than administer the reforms urged by Pristina, the resulting security vacuum prompted the Kosovo government to press for an immediate solution and threaten to dispatch its own forces.

Ethnic Serbs perceived that as a threat and the ensuing protests became highly volatile, with barricades going up across northern regions and shots occasionally fired, although there have been no reports of fatalities or serious injuries.

Pristina asked the KFOR international peacekeeping mission, which has just under 4,000 troops on the ground, to help it remove the roadblocks and added Kosovo would do it on its own if KFOR could not.

With Moscow one of Belgrade's biggest allies, Russia's full-scale invasion of Ukraine gave the west a sense of urgency to resolve the Kosovo issue.

Dmitry Peskov, President Vladimir Putin's spokesman, said Russia was backing Serbia but denied Moscow was exerting a "destructive influence".

Additional reporting by Max Seddon in Moscow

FINANCIAL TIMES
330 Hudson Street,
New York, NY 10013

Subscriptions and Customer Service
Tel: +1 800 628 8088
uscirculation@ft.com, www.ft.com/subsusa
Advertising
Tel: +1 917 551 5040
usads@ft.com
Letters to the editor
letters.editor@ft.com
Executive appointments
www.exec-appointments.com

Published by
F.T. Publications Inc.
330 Hudson St, New York,
NY 10013, USA;
Tel: +1 917-551-5000;
Editor: Roula Khalaf

Printed by
Blue Island Newspaper Printing, Harvey, IL
Evergreen Printing Company, Bellmawr, NJ
Bay Area Production Services, Fremont, CA

Published daily except Sundays, New Year's Day, Good Friday, Independence Day, Thanksgiving, the day after Thanksgiving, Christmas Day and the day after Christmas Day.

US subscription rates, 1 year $406. Periodicals postage paid at New York, NY and at additional mailing offices; Post-Master. Send address changes to F.T. Publications Inc., PO Box 469, Newburgh, NY 12551; USPS number, 190640; ISSN# 0884-6782.

© Copyright The Financial Times Limited 2022.
All rights reserved.
Reproduction of the contents of this newspaper in any manner is not permitted without the publisher's prior consent. 'Financial Times' and 'FT' are registered trade marks of The Financial Times Limited. The Financial Times and its journalism are subject to a self-regulation regime under the FT Editorial Code of Practice:
www.ft.com/editorialcode

Reprints are available of any FT article with your company logo or contact details inserted if required (minimum order 100 copies). One-off copyright licences for reproduction of FT articles are also available.
For both services phone +44 20 7873 4816, or alternatively, email syndication@ft.com

Recession risk

White House says 'soft landing' still possible for US economy

JAMES POLITI AND COLBY SMITH
WASHINGTON

The White House believes that the US economy can still pull off a "soft landing" as large-scale government investments enacted by Joe Biden help buoy the labour market in the months and years ahead, an adviser to the president has said.

The comments from Heather Boushey, a member of the White House council of economic advisers, come as many economists fear a significant slowdown and possibly a recession as the Federal Reserve barrels forward with the most aggressive plan to raise interest rates and root out high inflation since the early 1980s.

Fed officials projected this month that the US would narrowly avoid a contraction in 2023, with output increasing just 0.5 per cent.

US central bankers expect the nation's unemployment rate to rise from 3.7 per cent in November to 4.6 per cent by the end of next year, implying the likely loss of tens of thousands of jobs.

But Boushey said a series of laws passed by Congress and signed by the president during his first two years in office had created "funding streams" for infrastructure, clean energy and semiconductor manufacturing that would help blunt any downturn for the "real economy".

While there continued to be "challenges" and "unforeseen things", from Covid-19 to the war in Ukraine, hurting the outlook, she said, the legislation would be "pushing in the other direction. We remain optimistic that we will be able to see the soft landing that we are looking for. Time will tell but I think the pieces are in place to have a fighting chance to do so."

The US labour market performed more strongly than expected over the past three months, even with the Fed's tightening in high gear: it recorded average monthly job gains of 272,000, a sign of resilience that has been met with relief by the White House.

"We have delivered the sharpest recovery in jobs of any recent recovery. To see that is still ongoing is really remarkable," Boushey said.

Inflation has started to ease, something that has comforted the administration, with the annual increase in the consumer price index dropping from a peak of 9.1 per cent in June to 7. 1 per cent in November, though it remains at a level Fed officials deem far too high.

According to the American Automobile Association, the average petrol price in the US was $3.10 per gallon this week, lower than its level of $3.60 per gallon a month ago and even lower than $3.20 per gallon a year ago, before Russia's invasion of Ukraine.

While the Fed is primarily responsible for fighting inflation, the White House has tried to take action to curb price rises this year, including big releases of oil from the Strategic Petroleum Reserve.

Heather Boushey pointed to actions aimed at lifting the labour market

"The [consumer price index is] down two full points from where it was last summer, that's a marked achievement," Boushey said. "We had a plan, the president executed on that plan, and you can see the benefits for the American people."

The Fed's efforts to cool the economy are far from complete. This year, it raised its benchmark interest rate from near zero to a target range of 4.25 to 4.50 per cent.

According to the most recent projections released in mid-December, most officials see it rising above 5 per cent next year and staying there at least until 2024.

A soft or "softish" landing was still "possible", Fed chair Jay Powell said at his final press conference of the year, though "events of the last few months have raised the degree of difficulty".

In early December, 85 per cent of economists polled by the Financial Times in a joint survey with the University of Chicago's Booth School of Business projected a recession next year.

INTERNATIONAL

Biden confounds critics by ending tough year with a string of gains

Successes hush some Democratic voices calling on president to step aside in 2024

JAMES POLITI — WASHINGTON

Joe Biden was in a celebratory mood as he stepped on to the South Lawn of the White House this month sporting his trademark aviator sunglasses.

That morning, the latest monthly inflation data had shown price increases slowing more rapidly than expected across the US economy. A few hours later, to "True Colors" by singer Cyndi Lauper and applauded by members of Congress from both parties, he was signing bipartisan legislation to protect same-sex marriage across the country.

"It's been a long road but we got it done. And we're going to continue the work ahead, I promise you," Biden said.

The outdoor ceremony at the White House on December 13 capped what has been a remarkably upbeat end to the year for Biden, including a better than expected performance for Democrats in the midterm elections, the release of Brittney Griner, the US basketball star detained in Russia, and the announcement of a multibillion-dollar investment in semiconductor manufacturing in the swing state of Arizona.

What might have been a devastating year for Biden's presidency, including grappling with Russia's war in Ukraine, persistently high inflation, infighting among Democrats over legislation and what many feared would be a drubbing in the midterm elections, is instead ending on a high note for the White House.

This has put Biden, who turned 80 last month, in a better position to decide whether to seek re-election in 2024. An announcement by the president on his political future is expected early next year, and his recent successes have hushed some of the Democratic voices calling on him to step aside, given his age.

"The productiveness of his administration in partnership with Congress is just undeniable in the context of a national narrative which is some version of 'everything is going to hell in a handbasket'," said Tina Smith, Democratic senator from Minnesota. She added that she would expect any president who had Biden's "record of accomplishment" to seek another term, and she would back him if he did.

"He's led the party and fought for issues that are much more aligned with where middle-of-the-road voters are than the Republican party is," said Joel Benenson, a Democratic pollster who worked for former president Barack Obama.

Biden's approval ratings have improved in recent months, although they remain underwater. According to the Realclearpolitics.com polling average, 52 per cent of Americans disapprove of his performance as president, whereas 43 per cent approve. That gap of nine percentage points is far narrower than it was at the trough of his popularity in July, but will remain a concern for the White House and Democrats.

"There isn't a huge clamouring within the American public for this particular leader, there is [just] a clamouring for the normalcy he brought, to a certain extent," said Jeffrey Engel, founding director of the Center for Presidential History at Southern Methodist University in Texas.

Joe Biden signs the Respect for Marriage Act. Below, US basketball star Brittney Griner was freed by Moscow
Drew Angerer/Getty

Some of the most encouraging news for Biden has come on the economic front. In addition to the deceleration in the consumer price index, US jobs growth has remained solid, damping concerns that a recession triggered by the Federal Reserve's aggressive monetary tightening is imminent.

In their latest projections published this month, Fed officials predicted higher unemployment, inflation and interest rates in 2023. But they still expect the US economy to keep growing albeit at a sluggish pace of 0.5 per cent, and to speed up again in 2024.

"The positive economic news shows us that we have been on the right path and the policy decisions have been the right decisions," said Smith.

On the foreign policy front, Biden concluded the year by hosting a state visit for French president Emmanuel Macron, an emblem of the western unity he had helped forge against Vladimir Putin after Russia's attack on Ukraine. Even though this had little domestic impact, it helped cement faith in his national security team after the botched withdrawal from Afghanistan during his first year in office.

"Joe Biden grew up in the cold war, in the shadow of Harry Truman and some of the achievements that helped keep the peace for years; he came through and stood tall even if there was some hesitation at the beginning," said Alvin Felzenberg, a historian and former official on the US government's commission to investigate the 9/11 terrorist attacks. "He's worked hard to restore confidence with the allies," he added.

> 'The positive economic news shows us that we have been on the right path and the policy decisions have been the right decisions'

As he looks to the 2024 decision, Biden will want to avoid two disturbing precedents. The first is an internal primary challenge that would open divisions among Democrats and imperil his general election chances, such as those that helped doom Gerald Ford in 1976, Jimmy Carter in 1980 and George HW Bush in 1992. But if Biden does decide to step aside, he will want to do so early enough to allow potential Democratic successors to mount successful campaigns, unlike Lyndon Johnson's late announcement in 1968, which helped Richard Nixon to win the White House.

But after a year in which Biden confounded critics, the belief in the White House is that the president holds the best political cards he has in months.

IPA Incorporated by Royal Charter
FT FINANCIAL TIMES

Come back in a year and tell us if cutting your budget was a good idea

Brands can help in a cost of living crisis by cutting their marketing budgets. Wrong. We have more than 40 years of evidence that a short-term reaction is never as effective as long-term investment. For brands or the economy as a whole. Find out more at **ipa.co.uk/eff-works #EffWorks**

Covid wave

China elites stockpile Pfizer antiviral drug

Top tier snaps up only foreign treatment against virus sweeping the nation

SUN YU IN SHANGHAI AND NIAN LIU
BEIJING

China's elites are stockpiling supplies of Paxlovid, Pfizer's Covid-19 antiviral drug, and giving it away to curry favour with business associates as an unprecedented coronavirus wave leaves hospitals stripped of resources and ordinary people struggling to access medication.

Multiple public and private hospitals told the Financial Times that the drug, the only foreign Covid medication approved for use in China, was either out of stock or available only to patients with severe underlying health conditions. Paxlovid is generally prescribed to treat mild to moderate Covid cases.

Doctors said officials and business owners had snapped up significant stocks of the pills at exorbitant prices to protect their elderly parents, family or friends. The rush for Paxlovid was emblematic of the country's health inequalities, said analysts.

"Access to Paxlovid shouldn't be determined by people's power or wealth," said Jin Dongyan, a virologist at the University of Hong Kong.

China is struggling with its worst outbreak of coronavirus after abruptly abandoning its strategy of harsh lockdowns, quarantines and mass testing. Chinese officials estimated 250mn people were infected within 20 days as the virus spread through its biggest population areas, including Beijing, Shanghai and southern Guangdong province.

But authorities have been slow to make Paxlovid available to citizens. Beijing has also not approved any foreign Covid vaccines using messenger RNA technology, leaving its population reliant on less effective domestic jabs.

China imported its first batch of 21,200 boxes of Paxlovid in March as Shanghai suffered a huge outbreak. But shipments have remained minimal, with the country importing only several hundred thousand boxes, far short of demand, according to a Beijing-based government adviser who said that authorities feared putting Paxlovid's local competitors at a disadvantage.

> 'We don't want to count on another country. We need to create market space for locally made medicines'

"We don't want to count on another country for anti-Covid drugs," said the adviser. "We need to create market space for locally made medicines."

Beijing has in recent months heavily promoted Lianhua Qingwen, a traditional herbal remedy, and Azvudine, a domestic antiviral, as effective treatments despite a lack of clinical data.

Beijing informed the city's state-run community clinics on Monday they would receive a limited supply of Paxlovid for elderly patients. The move suggested the drug may become more widely available in the coming weeks.

But public hospitals in Beijing and Shanghai, where Paxlovid is covered by state-backed health insurance, said the pill would be reserved for patients with critical underlying conditions.

At some high-end private hospitals, Paxlovid is available for as much as Rmb8,300 ($1,200) a box — compared with the $530 the US government agreed to pay per five-dose course of the medication in April. An official at Oasis International Hospital in Beijing said it had sold out its inventory of 300 boxes this month within 24 hours.

A recent study co-funded by the Chinese Center for Disease Control and Prevention found that the country needed to make antivirals such as Paxlovid available to 160mn elderly people with underlying health conditions to effectively reduce Covid-related deaths, which projections have put as high as 1mn.

The limited supply has turned Paxlovid into a popular gift among China's well-connected. An official at one distributing hospital in Beijing said a "considerable" number of the pills ended up being bought by healthy people.

"It is more coveted than Moutai," said the official, referring to a premium Chinese liquor brand that is one of China's favoured business gifts.

Public health

Hong Kong abandons last pandemic curbs to help lift economy

CHAN HO-HIM — HONG KONG

Hong Kong has dropped almost all of its remaining Covid-19 restrictions and scrapped compulsory testing for arrivals as the city aims to revive its pandemic-hit economy and mirror Beijing's abrupt exit from zero-Covid.

John Lee, Hong Kong's chief executive, announced yesterday that travellers would no longer have to be PCR tested on arrival from today, and would only need to show a negative rapid antigen test. A ban on gatherings of more than 12 will also be ditched, although the city's outdoor mask mandate remains.

"I want to tell the world that . . . Hong Kong is very normal now," Lee said.

Close contacts of positive cases will no longer be told to isolate at home or quarantine at state facilities, ending what some termed the "brutal" experience of being trapped in government centres.

The Chinese territory had imposed some of the world's harshest curbs to stem the virus, including mandatory quarantines that at one point stretched up to three weeks. It also separated Covid-positive children from their parents, raising concern among expatriate residents and businesses as well as locals.

Hong Kong dropped hotel quarantine for overseas arrivals only in September and gradually lifted other curbs, such as those targeting bars and restaurants, this month. Residents will no longer need to display proof of vaccination to enter such venues from today.

More than 140,000 members of Hong Kong's workforce have left over the past two years, driven out by the pandemic regime and a crackdown by Beijing that crushed the city's civic freedoms.

Gary Ng, a senior economist at Natixis, has said the territory may rebound after the curbs are relaxed, predicting 3.5 to 4 per cent gross domestic product growth in 2023, following a projected 3.2 per cent contraction this year.

"It takes time to see the actual impact of border reopening," he said, adding that first-quarter economic data might remain discouraging.

Property services company Savills Hong Kong estimated that retail rents could rise up to 5 per cent in 2023, with the gradual return of mainland Chinese and overseas travellers.

Hong Kong's latest easing came after China this month ended government quarantine for Covid patients and this week said it would abandon isolation for inbound travellers next month amid its biggest outbreak of cases. Tens of millions are catching the virus every day in China, where hospitals have been overwhelmed by a wave of elderly patients and authorities have stopped releasing daily Covid case counts.

"When the government decided on a policy shift to live with the virus, these measures will have to be dropped at some point," said Leo Poon, head of the University of Hong Kong's division of public health laboratory sciences.

Hong Kong will also begin reopening its border with the mainland in stages from January 15, Lee said, a week after China drops its inbound quarantine requirement. Cross-border activity has been halted for the past three years, stifling the territory's economy.

More than 2.5mn of Hong Kong's population of 7.4mn had caught the virus, Lee said, meaning the city would be able to manage risks because of previous exposure. Hong Kong had its worst outbreak this spring, when it recorded the world's highest death rate. The city reported 19,689 new local cases and 59 deaths yesterday for the day before.

Zhengzhou pile-up Fog blamed for 200-vehicle crash

Stranded: one person was killed and scores injured when more than 200 vehicles crashed in heavy fog on a bridge in Zhengzhou in China's central Henan province yesterday — STR/AFP/Getty Images

South Asia. Agriculture

Sri Lankan farmers reap bitter harvest from fertiliser ban

Island nation relies on foreign aid to avert starvation after crisis caused by policy failure

BENJAMIN PARKIN — NEW DELHI
MAHENDRA RATNAWEERA — COLOMBO

For centuries, Sri Lanka has been renowned for its vast and varied produce, its fertile soil fostering everything from cinnamon and black pepper to fruits and fragrant teas.

But over the past 18 months, the country has become a cautionary tale for global agriculture. Vital inputs such as fuel and fertilisers are in short supply, with prices soaring. Yields from rice and other staples have halved in many areas and the once largely self-sufficient Indian Ocean island now depends on international aid to combat a hunger crisis.

In April 2021, Gotabaya Rajapaksa, then president, announced an abrupt ban on the import of chemical fertilisers to force the country of 22mn to embrace organic farming. The prohibition lasted only about six months but analysts said the policy stoked not only an economic crisis but is set to leave the agricultural sector hobbled for years.

"It really brought everything to a halt," said Ahilan Kadirgamar, a sociologist at the University of Jaffna who works with rural co-operatives. "Farmers have lost a lot of confidence in the government."

Sri Lanka this year became the first Asia-Pacific country to default on its international debt in more than two decades after running out of foreign reserves, prompting a foreign exchange crisis that led to mass protests, crippling shortages of medicine and other essentials and a dramatic drop in living standards across the island.

Colombo is engaged in debt-restructuring talks with creditors, including China, India and commercial bondholders to finalise a $2.9bn IMF bailout.

Although the crisis had many causes, from excessive borrowing for underused infrastructure projects to loss of tourism during the pandemic, experts said the fallout from the fertiliser ban was an important driver.

Rajapaksa, who was elected in 2019 and is the heir to one of Sri Lanka's most powerful political families, had warned against the destructive health and environmental effects of chemical fertiliser overuse. Yet many saw his botched prohibition less as a principled step to reform agriculture than an attempt to protect dwindling foreign currency reserves, as Sri Lanka was dependent on imported fertilisers. Farmers were among those who joined protests against his rule, ultimately forcing him to resign and flee the country in July.

> 'Fertiliser will run out soon and in the next season the farmers will be protesting again'

Athula Dissanayake, a 52-year-old paddy farmer who cultivates five acres in Sri Lanka's north-central Anuradhapura district, attempted to repurpose other types of fertiliser to save his rice crop following the ban, but to little effect. His harvest fell 50 per cent.

Dissanayake said he was "reeling with the high cost of everything". "Transport, children's school needs and labour on the farms have all risen," he added.

Even after the ban on chemical fertilisers was lifted in November 2021, farmers struggled to access supplies. Imports collapsed because of the lack of foreign exchange, while global fertiliser prices rose following Russia's invasion of Ukraine. Lenders such as India and the World Bank have stepped in to provide emergency funding to secure supplies.

Farmers used to be able to buy a 50kg bag of urea for SLRs1,500 ($4), Kadirgamar said. But the price rose as high as SLRs40,000 this year, before the government began selling it at a subsidised price of SLRs10,000.

Farmers said they had resorted to cultivating less land or relying on help from family instead of hiring labourers. Terrance Gamini, another farmer in north-central Sri Lanka, said people were returning to rural areas after losing jobs in the cities to find no work back home.

"This will create social friction in the farmer community," he said. "Fertiliser will run out soon and in the next season the farmers will be protesting again."

Sri Lanka, which before the crisis enjoyed a per-capita income double that of India, is reliant on foreign aid. Countries such as China have sent thousands of tonnes of rice, while the UN's World Food Programme and other agencies have donated supplies and cash.

But Shamila Rathnasooriya, a co-ordinator with rural non-profit organisation Movement for Land and Agricultural Reform, said aid alone would not be enough. His group is working with farmers to use indigenous seeds and other techniques to reduce their fertiliser costs. "We need to find local solutions," he said. "We don't have any idea how they're going to get fertiliser for the next season."

Couldn't give a XXXX Australians fall out of love with beer and pubs, preferring glass of wine at home

NIC FILDES — SYDNEY

Australians' love of beer once fed the idea of a country where "amber nectar" ruled supreme, from Paul Hogan's Foster's adverts to the oft-told story of cricketer David Boon downing 52 cans on a flight from Sydney to London.

Yet 2022 was the year when beer lost its mantle as Australia's favourite tipple for the first time, according to the brewing industry, as a younger, more abstemious and health-conscious generation turned its back on the increasingly pricey drink in the pub for a glass of wine at home.

Tim Cooper, chief executive of Coopers Brewery, the country's largest independent beer manufacturer, cited industry data showing that beer's share of the Australian alcohol market slipped to about 38 per cent this year, behind wine with more than 40 per cent.

This was a huge reversal from the 1970s, when beer accounted for 70 per cent of all alcoholic drinks consumed in Australia, with wine at just 10 per cent, he said.

"The big change is that people are drinking at home and not in the pubs any more. That's a substantial shift," said Cooper, the fifth generation of his family to lead the brewer in Adelaide, South Australia.

Half of the beer produced in Australia was consumed in pubs in the 1970s, he noted, a time when selling kegs was a "licence to print money". But that figure has now fallen to 16 per cent, not helped by the coronavirus pandemic, which has hit Australia's hospitality sector hard.

Matt Kirkegaard, founder of Brews News, a trade publication, said the emergence of wine as the country's most popular drink had been "sneaking up on us for a while", reflecting a shift in Australians' self-perception.

"For years beer has been such a strong part of our identity, whether it's Paul Hogan or the XXXX ads," he said, referring to the popular brand made by Castlemaine Perkins in Queensland. "But the modern Australian doesn't want to be seen that way any more. They want to be seen as more sophisticated."

Kirkegaard said the industry had not helped itself by promoting beer as an overtly masculine product, pointing to a Victoria Bitter campaign a decade ago that mocked men who used hand cream or drank cocktails. "They were on the wrong side of history," he said.

Indeed, VB has launched a range of colognes and bathroom products in the past two years, but the once all-powerful brand has dropped out of the top three beers in the country. Brewers argue that a range of factors has influenced beer's declining popularity, not least a more health-conscious population that now counts calories.

Bar tax: brewers say high taxes and health issues have reduced demand

John Preston, chief executive of the Brewers Association trade body, pointed to a drop in the amount of alcohol Australians drank. "People are drinking so much less than they did in the 1970s," he said.

Price is another key factor in changing consumer trends, as the cost of a pint reaches A$15 (US$10) because of rising inflation, which is linked to the tax levied on beer.

Preston said Australia was set to overtake Finland next year in terms of duties on beer, making it the third-highest in the world. "The general sense is that it has become a treat for people to go out."

Beer, which raises about A$2.5bn a year in tax, has struggled to compete financially against wine, which is treated differently and raises about a fifth of that amount a year for the Treasury. "There's an economic incentive . . . to switch from beer to wine," said Cooper.

Coopers, which has resisted takeover attempts by larger companies, expects beer volumes to continue to decline over the next decade. "Demand for beer is very elastic. If the price goes up, the volumes go down," Cooper said.

The company, which is located in one of Australia's most vibrant wine regions, is responding by pumping A$50mn into developing a whisky brand.

Cooper emphasised, however, that the 160-year-old brewer was not turning its back on its heritage: "We're not giving up on beer."

Kirkegaard pointed to the country's thriving craft beer scene as evidence that many Australians continued to enjoy a pint. "Beer has survived 12,000 years for a very good reason," he added.

CODEL Digital Certainty
www.codelmark.com
27 Dec 2022
6A1293CDA276BFBFE5642F8CDEB9CCCA
7D81D168820ADFA64746DE6926BB0A32
26 Dec 2022
DFEABCAD9A215748E5DD1BCC49D6DDF1
6C1B8E3CB8095DC32EBB88467E55BB37

FT LIVE

In partnership with

TNW
A Financial Times company

DID YOU MISS THE 6TH EDITION OF THE GLOBAL BOARDROOM?

View three days of insightful and engaging content featuring global leaders in business, policy and finance with a '**Video on demand**' pass. **Available until 9 March 2023.**

Watch today at ft.com/tgb

Speakers include:

Jens Stoltenberg
Secretary General,
NATO

Hester M. Peirce
Vice Commissioner,
US Securities and Exchange Commission

Jeremy Hunt MP
Chancellor of the Exchequer,
United Kingdom

Alberto Fernandez
President,
Argentina

Yasmin Kumi
Founder and CEO,
Africa Foresight Group

Yuriko Backes
Minister of Finance,
Luxembourg

Warren East
CEO,
Rolls-Royce

Penny Goldberg
Elihu Professor of Economics and Global Affairs, *Yale University*

Platinum Partner

Chevron

Silver Partners

Anaplan EY Google Cloud IRON MOUNTAIN KNIGHT FOUNDATION LUXEMBOURG FOR FINANCE THE FINANCIAL CENTRE DEVELOPMENT AGENCY NIKKEI PineBridge INVESTMENTS SIEMENS

Stealth QE Quantitative easing finds a way back as gilts crisis underlines risk to stability of withdrawing liquidity ➔ MARKETS INSIGHT

Companies & Markets

Lenders in UK agree steps to aid struggling homeowners

- Effort follows talks with chancellor
- Late mortgage payments set to soar

EMMA DUNKLEY — LONDON

Some of the UK's largest banks have agreed measures with the government to help struggling borrowers as they brace for a surge in late mortgage payments.

The so-called forbearance measures, which were used during the financial crisis, are an attempt by banks including HSBC, Barclays, Lloyds and NatWest to avoid repossessions and more pain for borrowers on top of soaring inflation and high energy bills.

Some measures could include switching mortgage holders to interest-only deals or moving them to competitive fixed-rate deals without having to take another affordability test.

> 'No doubt we will see arrears pick up, although they've been at historically low levels for some time'

The move follows a meeting this month between Jeremy Hunt and the UK's largest banks, when the chancellor made clear that lenders would need to help homeowners repay debt.

It highlights the difficult time ahead for borrowers, with about 1.8mn people in Britain needing to remortgage next year as their fixed-rate deal comes to an end, leaving them with the prospect of much higher costs.

One of the bankers at the meeting said the tone was "lean in to help, which we all are. The last thing any bank wants to do is repossess a house".

UK lenders are already preparing to set aside further provisions in their full-year results in February to cover the expected increase in loan losses as more borrowers struggle with their mortgage repayments.

Nigel Terrington, chief executive of Paragon Bank, said: "Banks are likely to achieve strong profit growth this year, so the extra provisioning will be affordable."

He said the situation was not comparable to the property market collapse in the financial crisis, when the number of UK home loans in arrears reached nearly 400,000. "Banks are more prudent today than they've ever been, and a lot of lending has been at the lower end of the loan-to-value range."

Lloyds, the largest mortgage lender, said just 4 per cent of its lending was above 80 per cent loan-to-value.

The average five-year fixed-rate mortgage is above 5.6 per cent from 2.66 per cent in January, according to data provider Moneyfacts.

The number of products shrank as banks struggled to price loans and withdrew deals. There were 5,394 products at the start of the year but the number has fallen to just over 3,780.

Brokers have warned that the higher rates and pressure from inflation will lead more borrowers to fall behind on repayments in 2023.

Ray Boulger, analyst at broker John Charcol, said: "No doubt we will see arrears pick up, although they've been at historically low levels for quite some time."

According to UK Finance, the banking industry body, the number of mortgages in arrears is projected to reach 98,500 next year from an estimated 80,100 in 2022.

The number of housing transactions is likely to drop as prices fall and home movers in particular contend with the prospect of a costlier mortgage.

The Bank of England increased rates again this month, to 3.5 per cent. Some brokers expected banks to struggle to pass on significant further rate rises given the weakening housing market.

Back into black Big coal miners' profits triple as global demand surges during energy crisis

Part of Blackwater mine, owned by a venture between BHP and Mitsubishi, in Queensland's Bowen Basin

LESLIE HOOK — LONDON

The world's largest coal mining companies tripled their profits in 2022 to total more than $97bn, defying expectations for an industry thought to be in terminal decline.

As global demand for the fuel rose to record levels, total earnings from coal operations at the world's 20 largest coal miners reached $97.7bn during the most recent 12-month period for which financial information is available, compared with $28.2bn during the same period a year earlier, according to Financial Times research and data from S&P Capital IQ.

Many countries that pledged to quit coal have turned back to it as a reliable source of heat and power as energy security concerns became a priority after Russia's invasion of Ukraine.

The biggest money makers were Glencore, whose coal earnings were $13.2bn in the 12 months ending on June 30; China Shenhua, which made $12.2bn during that time; and BHP, which brought in $9.5bn, mainly from the production of metallurgical coal.

Just a year after the UN COP26 climate summit pledged to "phase down" coal, demand for the fossil fuel has grown, boosted by high gas prices and the European energy crisis. Global coal demand rose 1.2 per cent to a record high in 2022, according to the International Energy Agency.

In 2022, the benchmark price for high-quality thermal coal in Europe was $295 on average — double the levels of the previous year, and nearly four times higher than the average price between 2010 and 2020, according to Argus Media.

As a result, coal mining companies have experienced a huge and unexpected boost to their fortunes.

The coal division of Anglo American, the world's fifth-largest producer outside China of the metallurgical coal used in steelmaking, swung from losses of $34mn in the 12 months ending on June 30 2021 to earnings of $2.5bn a year later.

The biggest increase in coal profits was at BHP, where they surged 3,200 per cent, from $288mn in the 12 months to June 30 2021 to $9.5bn a year later. BHP is the world's largest producer of metallurgical coal outside China. At Glencore, coal earnings rose to $13.2bn, compared with $1.2bn during the same period a year earlier.

"The seaborne producers are the big winners," said Myles Allsop, analyst at UBS. Companies that mine coal that is exported and traded internationally have had bigger gains than the state-owned coal miners that sell to their domestic market.

"The Ukraine war has triggered the extreme tightness in the coal market," said Allsop, adding that sanctions had blocked Russian coal from the European market.

Twitter rival Mastodon shuns Valley funding offers

IAN JOHNSTON — LONDON

Twitter rival Mastodon has rejected more than five investment offers from Silicon Valley venture capital firms in recent months, as its founder pledged to protect the fast-growing social media platform's non-profit status.

Mastodon, an open-source microblogging site founded in 2016 by German software developer Eugen Rochko, has seen a surge in users since Elon Musk bought Twitter for $44bn in October amid concerns over the billionaire's running of the social media platform.

Rochko told the Financial Times he had received offers from more than five US-based investors to invest "hundreds of thousands of dollars" in backing the product, following its fast growth.

But he said the platform's non-profit status was "untouchable", adding that Mastodon's independence and the choice of moderation styles across its servers were part of its attraction.

"Mastodon will not turn into everything you hate about Twitter," said Rochko. "The fact that it can be sold to a controversial billionaire, the fact that it can be shut down, go bankrupt and so on. It's the difference in paradigms [between the platforms]."

Twitter temporarily suspended the accounts of Mastodon and several journalists this month after they shared content on the flight path of Musk's private jet. Twitter also suggested it would ban links to rival social media platforms, including Mastodon, but later reversed course on the policy.

In a blog post in response, Rochko said this was a "stark reminder that centralised platforms can impose arbitrary and unfair limits on what you can and can't say", adding that monthly active users of Mastodon rose from 300,000 to 2.5mn between October and November.

Daily downloads of Mastodon rose from 6,000 on October 27, the day Musk acquired Twitter, to a peak of 243,000 on November 18, according to data from Sensor Tower. Usage of other smaller sites, such as Tumblr, has also rocketed.

Rochko is Mastodon's sole shareholder and, according to its 2021 annual report, he paid himself €2,400 a month last year, a figure he said has since risen by €500. Mastodon will continue to rely on donations to fund the platform.

The site has more than 8,500 donors on the membership platform Patreon, through which it is raising more than £25,000 a month.

Support measures follow rethink in Beijing over property mess

INSIDE BUSINESS
ASIA
Thomas Hale

More than a year since China's property crisis began, the government has changed its tune on the way to overcome it.

In the initial stages of the crisis, which were dominated by the default of heavily indebted developer Evergrande and a host of its peers, widely held expectations of government support failed to materialise.

The liquidity problems had in part arisen because of Beijing's attempts to discourage the excessive borrowing that had for years dominated real estate development. Companies unable to borrow new money as markets froze on the spectacle of Evergrande's excess defaulted on the old, and construction activity slumped.

But in November this year, as concerning housing data continued to emerge, authorities appeared to reconsider the dangers of debt.

The government unveiled 16 support measures for the property sector. Then state-run banks pledged an eye-watering sum — around $256bn according to S&P — in potential credit to specific developers.

The message of an industry divided between the good and the bad was reiterated this month at the country's Central Economic Work Conference, where policymakers pledged to support "high-quality leaders" and their balance sheets.

These include companies such as Vanke, which is partly owned by the Shenzhen Metro, and Country Garden, the biggest developer in the country by sales.

Jens Presthus, an associate director at advisory group Global Counsel, notes that Vanke's part state ownership has already allowed it to borrow at lower rates than peers.

One potential use of the vast funds earmarked for them is mergers and acquisitions, potentially allowing them to snap up the land or assets owned by failed peers, bailing out the assets if not their previous owners or creditors.

This kind of state-encouraged private-sector consolidation is typical of financial crises, as when JPMorgan agreed to buy Bear Stearns and the assets of retail bank Washington Mutual during the 2008 financial crisis.

> November figures paint a grim picture for the sector, with real estate investment suffering a 20% decline year on year

But while a collapse of financial institutions posed a spiralling threat to the financial and payments system, the collapse of Chinese real estate developers has so far been largely confined to that sector in its effects.

Despite the wave of government support, data in November paint a grim picture. Property investment fell 20 per cent year on year. Property sales fell a third in volume and value in November year on year.

Ting Lu, chief China economist at Nomura, notes that the rate of decline in sales did improve in a 30-city sample in the first half of December, but believes it could take a few more months for the sector to recover. The zero-Covid apparatus that is being relaxed may, with its lockdowns and bureaucracy, explain in part why the sluggishness in real estate has dragged on for so long.

Until now, the official response has been to encourage completion of housing projects, given that homebuyers in China typically pay for new flats before they are completed. This has often required the help of local governments, who were already under pressure because of the loss of revenues from land sales to developers.

The government's "three red lines" policy, introduced in the summer of 2020, sought to constrain developers. It came at a time, now easily forgotten, when stimulus and monetary loosening to ward off the economic hit from Covid had prompted a boom in the stock and property markets in China.

The new funds pledged by state-owned banks amount to credit lines that stand available, rather than an immediate lending splurge. They differ in legal convention from the international debts that some developers took on and which were at the centre of the crisis.

If the flood of money comes, it would amount to an undoing of a new creed of restraint on borrowing. But ultimately new lending will not be easily deployed unless there is a recovery in demand for housing — what Harry Hu at S&P Ratings has called a "buy-in from end-customers".

Lu at Nomura notes that medium- to long-term household loans were Rmb210bn in November, less than half their level a year earlier.

The question is whether Chinese homebuyers, rather than the Chinese government, have also changed their minds about debt and housing.

thomas.hale@ft.com

COMPANIES & MARKETS

Utilities. Privatisation

Eletrobras plays down renationalisation risk

Head of Brazil's biggest power group says return of Lula does not herald state recapture

MICHAEL POOLER — SÃO PAULO

Eletrobras has dismissed the possibility of the recent privatisation of the $19bn-valued Brazilian group being reversed by the future administration of leftwinger Luiz Inácio Lula da Silva.

Government control of Latin America's largest power utility was ended through a R$33.7bn ($6.3bn) share sale this year, fulfilling a key reform pledge of the outgoing rightwing administration of Jair Bolsonaro.

The deal in June reduced Brasília's ownership of Eletrobras to less than 50 per cent and ranked among the top-three public equity transactions globally in 2022, according to data provider Dealogic. President-elect Lula has voiced strong opposition to the sell-off, raising concerns that the process could be reviewed, as is desired by some of his allies and advisers.

But Wilson Ferreira Júnior, Eletrobras's chief executive, told the Financial Times he saw no risk of renationalisation thanks to legal protections designed to prevent an unfriendly takeover of the Rio de Janeiro-based group.

These include a "poison pill" provision in its corporate statutes, which would force the government — or any other shareholder seeking to gain control of the publicly listed group — to pay a 200 per cent premium. "To renationalise [Eletrobras] would cost three times its value. I believe this is a disincentive. Not even half of those funds exist," he said in an interview. "It will remain a company of private capital."

Another safeguard prevents any one investor from exercising more than 10 per cent of voting rights, irrespective of shareholding size.

Centrais Elétricas Brasileiras, as the utility is formally known, is responsible for about 30 per cent of Brazil's power generation, the vast majority of it from hydroelectric dams. It also operates wind and solar assets, thermoelectric plants and transmission lines.

Demonstrators protest against the privatisation of Eletrobras in June. Below, president-elect Luiz Inácio Lula da Silva — Amanda Perobelli/Reuters

Eletrobras shares registered a sharper drop than the local Bovespa index in the weeks following Lula's narrow election victory over Bolsonaro in October. Its São Paulo-listed ordinary shares are now trading slightly above the R$42 level agreed when the government reduced its stake.

Investors are worried about the direction of economic policy under Lula, who served two terms as Brazil's president between 2003 and 2010.

The 77-year-old veteran leftist intends to scrap a fiscal rule limiting increases in public spending, boost welfare payments and hand a greater role to the state.

While Lula has not explicitly threatened to bring Eletrobras back into the public sector, his promise of no more privatisations and strident criticism of the divestment have fuelled speculation that it is under consideration.

At the time, Lula referred to Eletrobras's denationalisation as a "crime against the homeland" resulting in the loss of Brazil's energy sovereignty. "If we win the election . . . we are going to restore the sovereignty of Brazil and the Brazilian people," he tweeted in June.

A person close to Lula's transition team, who asked not to be named, said that no definitive view had yet been taken on the company.

Eletrobras and the wider Brazilian equity market fell in mid-December after the country's lower house of Congress voted for a legislative amendment, which now goes to the Senate, to make political appointments easier at state-controlled enterprises.

Although no longer in that category, as a regulated entity Eletrobras could be subject to government influence in ways other than renationalisation, such as changes in sector rules or taxation, according to some analysts.

"A possibly more interventionist government has been priced in, which uses the economy and companies for the sake of politics," said Davi Lelis, economist at Valor Investimentos.

Backers of the privatisation argued it would attract more capital for investments and even lead to lower electricity bills, but opponents claim it will result in higher tariffs for consumers.

Ferreira said that in private hands, Eletrobras was freer to embark on a turnround plan to improve efficiency and slash overheads. A voluntary redundancy programme has already been accepted by close to 2,500 employees, or almost one-quarter of the workforce.

"As the biggest generation company in Brazil, we want to use this scale to operate as the most efficient and at the lowest cost," added Ferreira, who recently rejoined following a previous stint as chief executive between 2016 and 2021. "We are looking to be the company with the highest total shareholder return in the sector."

> 'We are looking to be the company with the highest total shareholder return in the sector'

As the leading renewable electricity generator in Latin America, Eletrobras has the potential to be a force in so-called "green" hydrogen, said Ferreira.

The gas is viewed as a fuel of the future because its combustion only results in water as a byproduct. It can be produced by using electricity to split water into hydrogen gas and oxygen, in electrolysis units powered by clean energy.

"Lots of our operations are on the Brazilian coast, which will allow us to be a big producer of hydrogen. I think that Eletrobras will be one of the biggest players in this area, for the internal market and export."

Eletrobras is also exploring offshore wind, which is yet to be developed in Brazil. It signed a co-operation agreement with oil group Shell in December about possible co-investments.

Antonio Junqueira, an analyst at Citi, said a glut of electricity in Brazil was an issue for the company, especially given an expected rush of renewables projects before government subsidy offers expire. "On the day-to-day business, the variable everyone is concerned about is power prices. Brazil has structural oversupply. How do you navigate this excess capacity?"

Once the corporate overhaul is complete, investors will want to know whether management intends to raise shareholder payouts or plough more cash back into investments, Junqueira added. "There's a sense among investors that the company will become a cash cow — a heavy dividend player."

Eletrobras swung into a slight net loss for the third quarter, compared with a profit of R$965mn a year before. It was mainly hit by a slump in transmission revenues, which are readjusted according to inflation indices.

Additional reporting by Carolina Ingizza

FT FUTURE FORUM

THE FT FUTURE FORUM HELPS YOU KEEP PACE WITH BUSINESS LEADERS

You've worked hard to get where you are. Now stay ahead by extending your network with the FT Future Forum, the Financial Times' fast-growing business community.

The FT Future Forum inspires the present and looks to shape the future through innovation, ideas and intelligence from dynamic business minds.

Join today to connect with other enterprising achievers, access exclusive insights from global thought-leaders and keep up with the latest industry trends.

To join or learn more, visit forums.ft.com/future-forum

Carmakers cut their reliance on China supply as tensions mount

Foreign manufacturers aim to make parts and cars for domestic use only

PETER CAMPBELL — LONDON
ERI SUGIURA — TOKYO
EDWARD WHITE — SEOUL

Over the past 20 years, China has risen from obscurity to become a global leader in the car parts industry.

Its growth was fuelled by European and American carmakers that farmed out the production of an increasing number of their components to China to save costs and establish links with the world's largest car market.

But international groups have now launched a quiet, yet concerted, effort to cut their reliance on China's sprawling network of components makers, according to industry executives and supply chain experts.

"There is a large-scale rethinking of logistics operations [across the industry]," said Ted Cannis, a senior executive at Ford. "The supply chain is going to be the focus of this decade."

The move has been prompted by two developments. The first is uncertainty caused by China's zero Covid-19 policy that forces plants to close at short notice. "The longer the pandemic stretches, the more uncertainty there is," Volvo Car boss Jim Rowan said earlier this year, when announcing the Geely-backed carmaker was increasing its use of non-Chinese components.

But the second is a longer-term concern about a larger political decoupling in the event of a breakdown in China's relations with the international community, similar to Russia's, that could threaten trade. Although most international groups are unlikely to abandon the Chinese market entirely because of its size, they expect the flow of components from the country to plants across the world to fall over time.

Consequently, foreign manufacturers aim to make parts and cars inside China exclusively for use within the country.

This cuts their reliance on Chinese factories for goods sold overseas, while retaining a secure local supply chain for their own plants inside the country.

A quarter of China's exported car parts end up in US plants at present, said a report from Sheffield Hallam University in December, which highlighted the country's rise as a global supplier over the past two decades. In private, car bosses draw parallels with their experience in Russia after President Vladimir Putin's invasion of Ukraine.

Then, groups from Renault to Mercedes-Benz were forced to wind down or sell plants in Russia, while important components, such as palladium, had to be sourced elsewhere. But the supply chain shake-up will take time as carmakers rarely switch the sourcing of components until the end of a vehicle's life, which is about seven years. It could also prove expensive for an industry that operates on lean margins.

"I don't think the sourcing is the difficulty. It's the price that winds up changing," said Tom Narayan, an automotive analyst at RBC. "If everyone tries to shift to the same European or US providers, you're limiting the supply, and the price will go up."

Ted Mabley, supply chain consultant at PolarixPartner, said moving away from China "will be looking at a price lift for both labour and material".

Supply side: wheel-making in Shanxi province. Below, the Wuhan factory of SAIC-GM — CFoto/Future Publishing/Getty Images; Ren Yong/Sopa Images/Sipa USA

This means carmakers must make savings elsewhere, particularly with costs rising in the switch to electric, or risk becoming uncompetitive.

However, carmakers are also aiming to be more rigorous over their choice of suppliers as they focus on the resilience of the supply chain, as well as costs, to make sure it does not break down.

"It is no longer an era where cost is the major driving factor," said Masahiro Moro, senior managing executive officer at Mazda. "Right now, robustness of our supply chain also needs to be considered to ensure the stable procurement of parts."

Mazda said it was shifting production of some components made in China to its home market in Japan.

Mazda has already asked more than 200 of its suppliers that use components made in China to stock up on inventories in case there are disruptions ahead.

Yet, despite growing wariness behind boardroom doors, the industry remains reliant on sales to consumers in the Chinese market, making it hard for executives to talk openly about some of the changes. Executives said Mazda's reallocation was driven mainly by concerns over the reliability of supplies as a result of the Covid lockdowns.

> 'The Germans are so tethered to China, not only for sourcing but on the customer side too'

Japan-based Honda admitted it was considering ways to cut supply chain risks, although it denied media reports that it was exploring the possibility of building cars and motorcycles with as few China-made parts as possible.

"With a series of production supply impacts due to multiple factors, including the Shanghai lockdown, we are considering various ways to hedge supply chain risks. However, we are not specifically considering a scenario of decoupling in China," the company said.

Both Ford and General Motors have been proactively shifting parts out of the country for their US factories for more than a year, according to several people.

GM said: "Most of the parts we use in North America are already sourced in North America, and supply chain challenges over the past few years have reinforced the value of the resilience of our sourcing."

The company added that "most of our sourcing in China is for production in China", and "we plan to continue this approach".

Supply chain risks are greater for the German carmakers Mercedes, BMW and, particularly, Volkswagen.

The three are so deeply embedded in China that, alongside German chemicals group BASF, they accounted for a third of all European direct investment between 2018 and 2021.

"The Germans are so tethered to China, not only for sourcing but on the customer side too," said RBC's Narayan. "That is actually right now the biggest risk that investors are looking at."

However, Jörg Burzer, head of supply chains at Mercedes-Benz, stressed any changes to the company's sourcing of parts were not driven by political concerns. It is "not about China or the US", but "about the best set-up of the supply chain and the operations", he told the Financial Times Global Boardroom summit in December.

"Obviously, we look at the sources which are nearby, which could also be from European suppliers or US suppliers or Mexican suppliers," he added.

Additional reporting by Claire Bushey

COMPANIES & MARKETS

Emerging markets. Index products

Chile, India and peers defy gloom with ETF 'awakening'

Santiago's stock exchange: Chile's ETFs have proved a bright spot in 2022
Ivan Alvarado/Reuters

Assets expand this year in parts of Latin America and Asia despite falls elsewhere

STEVE JOHNSON

Financial markets may have slumped across most of the world in 2022, but a handful of countries are on track to see growth in exchange traded fund assets despite the headwind of plummeting valuations.

The resilience attests to the growing adoption of ETFs around the globe — particularly in some emerging market economies where uptake has lagged behind more developed countries — as well as some pockets of resistance in financial markets themselves.

As of the end of November, Chile, India, Mexico and South Korea were on track to record year-on-year ETF asset growth, according to data from Morningstar Direct, even as global ETF assets fell 7.6 per cent from $10.3tn to $9.5tn, according to ETFGI, a consultancy.

The declines have been sharper still in some cases. The assets of Swedish-listed ETFs tumbled 36.3 per cent to $6.3bn in the first 11 months of 2022, according to Morningstar as the MSCI Sweden equity index slid an outsized 27.3 per cent in dollar terms.

The Colombian ETF market saw a 31 per cent contraction to $1.4bn as net inflows worsened a 12.4 per cent stock market fall in dollar terms, while Indonesia's tiny market managed to shrink even further, by 26.7 per cent to $358mn, due to net outflows — despite a 9.1 per cent stock market rise.

Among the larger markets, assets of US-listed ETFs have fallen by 6.4 per cent to $6.8tn, according to Morningstar, those of Irish-listed vehicles by 7.7 per cent to $964bn and those of Japan by 17.9 per cent to $446bn. Luxembourg-listed ETFs have contracted by 16.7 per cent to $281bn and Canada has seen a 7.1 per cent decline to $254bn.

There have been pockets of growth for the industry, though, perhaps chiefly among them India, where ETF assets have risen 11.4 per cent this year to $60.6bn, despite the stock market making small losses in dollar terms.

"India has seen huge growth in index products, both ETFs and mutual funds," said Deborah Fuhr, managing partner and founder of ETFGI. "It has really seen an awakening in terms of growth of index products tracking the Nifty 50 [equity] index."

Kenneth Lamont, senior fund analyst for passive strategies at Morningstar, said India was one of the more "interesting" ETF industry growth stories, with at least 15 ETFs, both equity and fixed income, receiving $100,000 or more in net inflows so far this year.

The country's ETF assets have quintupled since December 2017, when they were a mere $12.2bn, according to Morningstar, the second-fastest rate of growth in the world, behind only Chile.

The official dated the start of the industry's growth spurt to 2015, when total assets in equity and bond ETFs were a "minuscule" $1bn, despite the first Indian ETF having launched in 2001.

That year, the Employees' Provident Fund Organisation, which administers India's mandatory pension fund, started pumping 5 per cent of incremental investments into equity ETFs tracking the Nifty 50 and Sensex 30 indices. This was later tripled to 15 per cent.

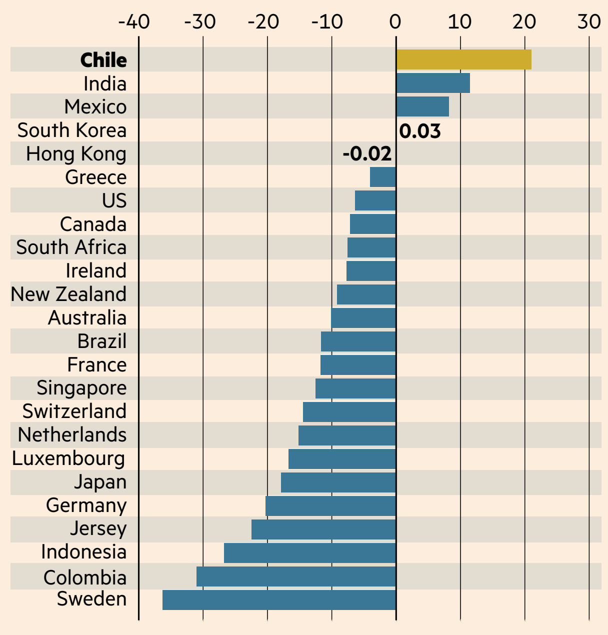
"That was the driving force of the ETF industry taking off," the official said. "Once they started investing, the industry has grown in leaps and bounds and retail investors have also started investing in passive funds."

India now boasts 294 passive funds, up from just 84 in March 2017, according to data from the Association of Mutual Funds in India, collated by NSE Indices, with the segment now accounting for about 15 per cent of total fund industry assets.

Some 16.3mn investor "folios" now include ETFs, and 3.1mn involve passive mutual funds, up from 1.3mn and 0.3mn respectively as recently as March 2019, according to AMFI data collated by the exchange.

"Most of the active funds, especially in the large cap category, are finding it difficult to outperform the underlying indices, so people are switching from active to passive funds," said the official.

Change in ETF assets under management
Calendar year to end Nov (%)



Source: Morningstar Direct

The other major success stories have been in parts of Latin America. Chile has seen the strongest asset growth this year of any country tracked by Morningstar, with AUM up 21 per cent to $4.1bn.

Net inflows were a solid $919mn, the second-highest on record although a fraction of 2021's $3.2bn, while a 22.4 per cent rise in the dollar-denominated MSCI Chile index will have helped those investing in the domestic stock market.

Mexico is another bright spot, with a combination of net inflows and more modest stock market gains helping propel an 8.2 per cent rise in assets to $6.1bn.

Lamont emphasised that these markets remained small, and in the case of Chile most of inflows were sucked up by just one fund, Singular Global Corporates, which invests in dollar-denominated debt issued globally.

However, the data, which are based on the primary listing of each ETF, probably fail to capture the full vigour f LatAm markets, Lamont said, given that many now permit the cross-listing of ETFs whose primary listing is overseas.

Hector McNeil, co-founder and chief executive of HANetf, which has cross-listed more than 20 ETFs in Mexico, alongside others in the likes of Chile and Peru, said there was "a huge amount of demand" for overseas assets, such as US Treasuries, hedged back into Mexican pesos, in order to limit risk.

Moreover, McNeil said European-listed ETFs based on the continent's Ucits fund structure, were more tax efficient than both US-listed ETFs, which typically levy a withholding tax, and even direct holdings of Mexican bonds.

FT

Our global team gives you market-moving news and views, 24 hours a day
ft.com/markets

Commodities

European gas price at lowest since before Ukraine war

SHOTARO TANI — LONDON

European natural gas prices have fallen to the lowest level since before Russia's full-scale invasion of Ukraine as warmer weather helped the continent to replenish its reserves.

The Dutch TTF gas future for the coming month, the benchmark European contract, dropped as much as 7.4 per cent to €76.78 per megawatt hour yesterday, its lowest level in 10 months, just before Russia launched its full-scale invasion, according to data from Refinitiv. It later retraced some of its losses to trade 2.8 per cent lower at €80.55.

Moscow's weaponisation of the commodities it sells Europe, combined with record-breaking temperatures, helped push gas prices to more than €300 per megawatt hour over the summer. In an effort to stem rising prices, the EU has implemented a series of measures, including mandatory gas storage and consumption reduction targets.

The latest fall comes following warmer than usual temperatures across north-west Europe, which are expected to stay into the new year. As the warm weather reduces heating demand, Europe has been able to build up its gas inventory again after drawdowns from mid-November, including during the cold snaps in the early weeks of December. Since Christmas Eve, Europe has been sending more gas to its storage facilities than it takes from them. Capacity stood at 83.2 per cent full as of Monday, down from the mid-November high of 95.6 per cent, according to industry body Gas Infrastructure Europe.

> 'It is unlikely the region will be able to build storage at the same pace as seen in 2022'

The current level is some 30 per cent higher than the same period last year, when Europe had unusually low levels of storage, and about 10 per cent higher than the average of the previous five years. Reduced demand for gas has also helped inventories, with the region cutting its requirements by about a quarter compared with the five-year average in November, after a similar fall in October.

Analysts warn that Europe will be in a difficult position when trying to restock its gas inventory next year, when the volume of gas supplied from Russian pipelines will be considerably lower, and the liquefied natural gas market, which the region has depended on this year, remains tight.

"We believe 2023 will be a tough year for the European natural gas market. It is unlikely the region will be able to build storage at the same pace as seen in 2022," said Ewa Manthey, commodities analyst at ING, in a recent note.

"Demand destruction will need to continue to ensure adequate supply for the 2023-24 winter. In order to see this demand destruction, prices will have to remain at elevated levels. We forecast TTF to average €175/MWh over 2023."

European countries have been working on a package of measures to prevent energy prices spiking, as they did in the summer.

Before Christmas, EU ministers reached an agreement to cap gas prices in the bloc when they hit €180 per megawatt hour for three days and sit at €35/MWh or more above global LNG prices.

QE resurfaces in central bank liquidity by means other than bond-buying

MARKETS INSIGHT

Michael Howell

It has been a bleak year for many investors. Global investors have lost $23tn of wealth in housing and financial assets so far in 2022, according to my estimates. That is equivalent to 22 per cent of global gross domestic product and uncomfortably exceeds the lesser $18tn of losses suffered in the 2008 financial crisis.

Hopefully though, next year will not be so bad for assets, as the cycle of global liquidity is bottoming out. Part of my reasoning is that quantitative easing programmes by central banks to support markets are impossible to reverse quickly because the financial sector has become so dependent on easy liquidity. The very act of quantitative tightening creates systemic risks that demand more QE.

We track the fast-moving, global pool of liquidity; the volume of cash and credit shifting around financial markets. The impact of the ebb and flow of this pool, currently about $170tn, can be seen in the central bank programmes to support markets through the pandemic — quantitative easing. The latter drove another "everything up" bubble during 2020-21, but as soon as policymakers hit the brakes in early 2022 and triggered a near-$10tn liquidity drop, asset markets collapsed.

We focus on liquidity as the nature of our financial system has changed. The markets no longer serve as pure capital-raising mechanisms. Rather, they are capital refinancing systems, largely dedicated to rolling over our staggering global debts of well over $300tn. This puts a premium on understanding collective balance sheet capacity to finance debt issues over analysis of the cost of capital.

We estimate that for every $1 raised in new finance, $7 of existing debts need to be rolled each year. Refinancing crises hit us more and more regularly. Hence, the importance of liquidity.

So, what now? According to our monitoring of liquidity data, we have just passed the point of maximum tightness. The two most important central banks driving the global liquidity cycle are the US Federal Reserve and the People's Bank of China. Think of the Fed as mainly controlling the tempo of financial markets, given the dominance of the dollar, whereas China's large economic footprint gives the PBoC huge influence over the world business cycle. In short, the stock market's price-earnings multiple is determined in Washington and its earnings in Beijing.

The Chinese market enjoyed a large jump in liquidity injections in November, led by the start of an easier monetary policy from the PBoC. Contrary to the consensus view, latest data also show the US Federal Reserve adding back liquidity into dollar markets, despite its ongoing QT policy.

Admittedly, the Fed has reduced its holdings of US Treasuries holdings in seven of the last nine weeks as part of QT. But net liquidity provision, benchmarked by moves in the Fed's "effective" balance sheet, has remarkably risen in six of these weeks. In fact, the Fed added an impressive $157bn to US money markets through its operations.

> QT is harder to achieve in practice than in theory. Stealth QE may be back next year

We project a further pick-up in global liquidity. China desperately needs to boost its lockdown-hit economy, so expect further policy stimulus in 2023. Two other favourable factors are the lower US dollar and weaker oil prices.

We estimate that each percentage point fall in the dollar increases the take-up of cross-border loans and credit by a similar percentage amount. The US currency is already down a hefty 9 per cent from its recent peak. The fall in oil prices to below $80 a barrel should also help, reducing the amount of credit required to finance transactions.

There could be more. The Fed plans to reduce its holdings of Treasury and government agency securities by $95bn a month, but other items are likely to offset some, maybe even all of this.

First, the $450bn Treasury General Account, the US government's deposit account at the Fed, is likely to fall ahead as bills are paid ahead of difficult forthcoming debt ceiling negotiations. Second, the Fed's $2.52tn "reverse repo" facility for providing short-term investment to parties such as money market funds could drop significantly. This is because there are hints that the Treasury will issue more bills, debt of less than one-year maturity, relative to bonds which have longer terms.

Third, rising interest rates mean the Fed will pay out more on debt it has issued. This could amount to a whopping $200bn over 2023.

The September turmoil in the UK gilt market was a reminder of the risks of financial instability when liquidity is withdrawn. Mindful of such forces, could the Fed be reluctant to push liquidity down too much? One could argue that by winding back its portfolio of Treasuries ("official QT"), but allowing effective liquidity provision to rise ("unofficial QE"), the Fed is trying to have its cake and eat it.

Whichever, it surely shows that QT is harder to achieve in practice than in theory. Stealth QE may be back next year and make what looks to be a difficult year feel a tad better.

Michael Howell is managing director at CrossBorder Capital and author of 'Capital Wars: The Rise of Global Liquidity'

MARKET DATA

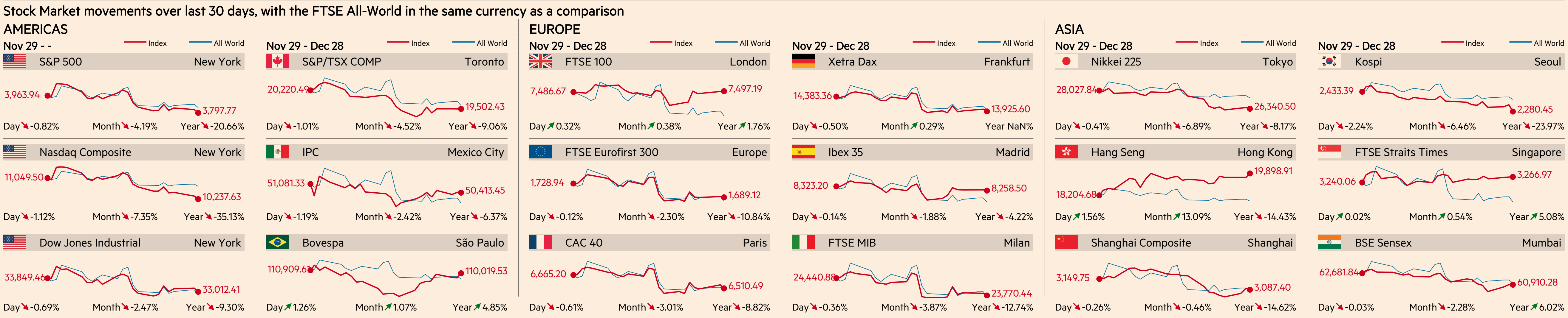
WORLD MARKETS AT A GLANCE

FT.COM/MARKETSDATA

Change during previous day's trading (%)

S&P 500	Nasdaq Composite	Dow Jones Ind	FTSE 100	FTSE Eurofirst 300	Nikkei	Hang Seng	FTSE All World $	$ per €	$ per £	¥ per $	£ per €	Oil Brent $ Sep	Gold $
-0.82%	-1.12%	-0.69%	0.32%	-0.12%	-0.41%	1.56%	-0.62%	-0.282%	0.166%	0.656%	-0.451%	-0.50%	-0.93%

Stock Market movements over last 30 days, with the FTSE All-World in the same currency as a comparison



Country	Index	Latest	Previous
Argentina	Merval	202402.23	196054.05
Australia	All Ordinaries	7262.20	7287.80
	S&P/ASX 200	7086.40	7107.70
	S&P/ASX 200 Res	6035.40	5999.30
Austria	ATX	3122.96	3144.47
Belgium	BEL 20	3708.49	3717.67
	BEL Mid	9575.97	9559.54
Brazil	IBovespa	109943.78	108578.20
Canada	S&P/TSX 60	1166.36	1177.82
	S&P/TSX Comp	19310.42	19506.65
	S&P/TSX Div Met & Min	1580.48	1571.06
Chile	S&P/CLX IGPA Gen	27236.10	27276.82
China	FTSE A200	10293.88	10326.32
	FTSE B35	9000.71	8988.96
	Shanghai A	3236.18	3244.71
	Shanghai B	280.53	281.43
	Shanghai Comp	3087.40	3095.57
	Shenzhen A	2065.38	2085.27
	Shenzhen B	1143.74	1148.67
Colombia	COLCAP	1261.61	1260.21
Croatia	CROBEX	2013.05	2011.29
Cyprus	CSE M&P Gen	68.46	68.68
Czech Republic	PX	1205.33	1205.58
Denmark	OMXC Copenahgen 20	1825.91	1831.80
Egypt	EGX 30	14578.21	14485.18
Estonia	OMX Tallinn	1760.76	1763.04
Finland	OMX Helsinki General	10861.37	10917.01
France	CAC 40	6510.49	6550.66
	SBF 120	5000.03	5028.78
Germany	M-DAX	25200.86	25285.55
	TecDAX	2899.21	2902.83
	XETRA Dax	13925.60	13995.10
Greece	Athens Gen	923.00	923.26
	FTSE/ASE 20	2237.22	2232.89
Hong Kong	Hang Seng	19898.91	19593.06
	HS China Enterprise	6772.76	6642.90
	HSCC Red Chip	3690.74	3615.25
Hungary	Bux	44155.50	44220.76
India	BSE Sensex	60910.28	60927.43
	Nifty 500	15432.80	15418.35
Indonesia	Jakarta Comp	6850.52	6923.03
Ireland	ISEQ Overall	7165.00	7181.70
Israel	Tel Aviv 125	1799.75	1784.80
Italy	FTSE Italia All-Share	25759.02	25875.65
	FTSE Italia Mid Cap	39236.51	39571.69
	FTSE MIB	23770.44	23855.86
Japan	2nd Section	7228.27	7239.06
	Nikkei 225	26340.50	26447.87
	S&P Topix 150	1634.29	1634.67
	Topix	1909.02	1910.15
Jordan	Amman SE	2494.56	2487.10
Kenya	NSE 20	1668.34	1663.36
Kuwait	KSX Market Index	6633.44	6603.51
Latvia	OMX Riga	1131.79	1157.67
Lithuania	OMX Vilnius	942.62	947.11
Luxembourg	LuxX	1462.32	1466.94
Malaysia	FTSE Bursa KLCI	1480.11	1474.69
Mexico	IPC	49841.21	50440.02
Morocco	MASI	10962.71	11001.32
Netherlands	AEX	694.84	701.06
	AEX All Share	949.73	958.61
New Zealand	NZX 50	11539.31	11494.96
Nigeria	SE All Share	49706.09	49499.43
Norway	Oslo All Share	1017.37	1006.88
Pakistan	KSE 100	39279.43	39802.91
Philippines	Manila Comp	6566.54	6564.90
Poland	Wig	56634.04	56574.46
Portugal	PSI 20	5730.28	5756.98
	PSI General	4434.90	4451.98
Romania	BET Index	11729.05	12182.86
Russia	Micex Index	2436.57	2445.30
	RTX	1245.71	1212.57
Saudi-Arabia	TADAWUL All Share Index	10485.29	10359.26
Singapore	FTSE Straits Times	3266.97	3266.38
Slovakia	SAX	334.74	339.60
Slovenia	SBI TOP	-	-
South Africa	FTSE/JSE All Share	74277.56	73493.47
	FTSE/JSE Res 20	73136.46	71801.97
	FTSE/JSE Top 40	68157.48	67323.76
South Korea	Kospi	2280.45	2332.79
	Kospi 200	297.09	304.22
Spain	IBEX 35	8258.50	8270.10
Sri Lanka	CSE All Share	8411.42	8452.70
Sweden	OMX Stockholm 30	2052.76	2067.61
	OMX Stockholm AS	784.08	789.57
Switzerland	SMI Index	10812.67	10839.22
Taiwan	Weighted Pr	14173.10	14328.43
Thailand	Bangkok SET	1647.28	1643.16
Turkey	BIST 100	5345.61	5345.61
UAE	Abu Dhabi General Index	9222.93	9251.11
UK	FT 30	2462.80	2451.00
	FTSE 100	7497.19	7473.01
	FTSE 4Good UK	6746.94	6725.74
	FTSE All Share	4096.54	4083.66
	FTSE techMARK 100	6322.07	6309.11
USA	DJ Composite	10953.03	11035.54
	DJ Industrial	33012.41	33241.56
	DJ Transport	13377.05	13530.31
	DJ Utilities	979.38	982.37
	Nasdaq 100	10703.79	10822.51
	Nasdaq Cmp	10237.63	10353.23
	NYSE Comp	15097.48	15218.26
	S&P 500	3797.77	3829.25
	Wilshire 5000	37600.19	37931.74
Venezuela	IBC	17911.42	16485.16
Vietnam	VNI	1015.66	1004.57
Cross-Border	DJ Global Titans ($)	399.73	403.02
	Euro Stoxx 50 (Eur)	3809.64	3832.89
	Euronext 100 ID	1238.53	1247.72
	FTSE 4Good Global ($)	9328.20	9405.41
	FTSE All World ($)	397.27	399.75
	FTSE E300	1689.12	1691.10
	FTSE Eurotop 100	3331.83	3335.90
	FTSE Global 100 ($)	2392.30	2413.57
	FTSE Gold Min ($)	1780.54	1769.07
	FTSE Latibex Top (Eur)	4440.00	4432.20
	FTSE Multinationals ($)	2577.96	2587.57
	FTSE World ($)	718.79	724.00
	FTSEurofirst 100 (Eur)	4494.85	4500.06
	FTSEurofirst 80 (Eur)	5182.09	5210.99
	MSCI ACWI Fr ($)	605.24	605.97
	MSCI All World ($)	2600.94	2605.48
	MSCI Europe (Eur)	1735.66	1731.49
	MSCI Pacific ($)	2626.16	2623.81
	S&P Euro (Eur)	1713.08	1722.15
	S&P Europe 350 (Eur)	1731.29	1733.42
	S&P Global 1200 ($)	2861.39	2880.70
	Stoxx 50 (Eur)	3678.53	3684.41

(c) Closed. (u) Unavaliable. † Correction. ♥ Subject to official recalculation. For more index coverage please see www.ft.com/worldindices. A fuller version of this table is available on the ft.com research data archive.

STOCK MARKET: BIGGEST MOVERS

AMERICA

ACTIVE STOCKS	stock traded m's	close price	Day's change
Tesla	133.0	109.82	0.72
Apple	47.2	126.59	-3.44
Nvidia	26.2	140.07	-1.14
Amazon.com	23.2	81.90	-1.14
Microsoft	15.6	235.75	-1.21
Advanced Micro Devices	12.0	62.18	-1.10
Meta Platforms	9.6	116.13	-0.75
Netflix	8.2	274.08	-10.09
Alphabet	6.4	86.66	-1.27
Alphabet	5.9	86.19	-1.20

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Generac Holdings	94.72	3.57	3.92
American Tower	213.15	2.25	1.07
Intercontinental Exchange	102.96	0.85	0.83
Humana	518.44	4.06	0.79
Centene	82.19	0.61	0.75
Downs			
Eqt	33.82	-2.52	-6.93
Solaredge	278.46	-14.58	-4.98
First Solar	143.04	-7.18	-4.78
Vf	25.89	-1.28	-4.69
Apa	45.42	-2.22	-4.66

Based on the constituents of the S&P500

LONDON

ACTIVE STOCKS	stock traded m's	close price	Day's change
Shell	139.1	2350.00	-16.50
Glencore	126.3	559.70	1.70
Astrazeneca	103.0	11250.00	12.00
Bp	100.8	480.40	1.50
Diageo	95.7	3668.50	21.00
British American Tobacco	85.2	3332.50	16.00
Rio Tinto	81.4	5818.00	10.00
Anglo American	69.2	3286.00	36.50
Unilever	63.1	4205.50	-8.50
Hsbc Holdings	59.9	518.00	7.70

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Abrdn Private Equity Opportunities Trust	435.00	24.00	5.84
Paragon Banking	580.50	26.00	4.69
Synthomer	146.10	6.00	4.28
Pz Cussons	216.50	7.00	3.34
Dr. Martens	188.20	6.00	3.29
Downs			
Ferrexpo	164.50	-8.40	-4.86
Scottish Mortgage Investment Trust	690.00	-31.60	-4.38
Warehouse Reit	102.60	-4.60	-4.29
4imprint	4290.00	-190.00	-4.24
Wizz Air Holdings	1999.50	-84.50	-4.05

Based on the constituents of the FTSE 350 index

EURO MARKETS

ACTIVE STOCKS	stock traded m's	close price	Day's change
Nestle N	233.6	109.65	0.00
Novartis N	208.8	85.69	-0.30
Roche Gs	201.8	296.76	-1.57
Asml Holding	133.4	501.10	-9.20
Totalenergies	132.1	59.12	-0.51
Unicredit	130.8	13.32	0.06
Richemont N	113.4	123.15	0.71
Novo Nordisk B A/s	104.9	125.11	-0.32
Stellantis	86.2	13.12	-0.04
Iberdrola	85.3	10.92	0.03

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Sartorius Ag Vzo O.n.	359.50	7.60	2.16
Vonovia Se Na O.n.	22.07	0.26	1.19
Amadeus It	49.26	0.51	1.05
Dsv A/s	148.52	1.41	0.96
Lonza N	461.95	3.25	0.71
Downs			
Cs N	2.81	-0.08	-2.91
Asml Holding	501.10	-9.20	-1.80
A.p. M__ller - M__rsk A A/s	2104.46	-36.31	-1.70
A.p. M__ller - M__rsk B A/s	2136.73	-35.63	-1.64
Engie	13.43	-0.18	-1.35

Based on the constituents of the FTSEurofirst 300 Eurozone index

TOKYO

ACTIVE STOCKS	stock traded m's	close price	Day's change
Mitsubishi Ufj Fin,.	843.2	897.50	-0.30
Sumitomo Mitsui Fin,.	561.9	5352.00	32.00
Fast Retailing Co.,	433.8	81420.00	-910.00
Softbank .	418.3	5711.00	-85.00
Japan Tobacco .	379.5	2843.00	-4.50
Tokyo Electron	361.4	39290.00	-390.00
Nippon Yusen Kabushiki Kaisha	327.1	3164.00	-33.00
Toyota Motor	309.7	1819.00	1.50
Mizuho Fin,.	239.0	1878.00	11.00
Kawasaki Kisen Kaisha,	225.6	2816.00	-46.00

BIGGEST MOVERS	Close price	Day's change	Day's chng%
Ups			
Nippon Sheet Glass ,	579.00	19.00	3.39
Kawasaki Heavy Industries,	3180.00	80.00	2.58
Ihi	3950.00	90.00	2.33
Tokio Marine Holdings,.	2902.00	65.50	2.31
Hitachi Zosen	832.00	18.00	2.21
Downs			
Z Holdings	328.70	-7.40	-2.20
Rakuten .	581.00	-12.00	-2.02
Alps Alpine Co.,	1199.00	-24.00	-1.96
Nippon Express Holdings,	7750.00	-150.00	-1.90
Pacific Metals Co.,	1902.00	-36.00	-1.86

Based on the constituents of the Nikkei 225 index

UK MARKET WINNERS AND LOSERS

FTSE 100	Dec 28 price(p)	%Chg week	%Chg ytd
Winners			
Prudential	1123.50	2.8	-
Admiral	2122.00	2.2	-
Haleon	327.05	2.0	-
Antofagasta	1586.50	1.7	18.4
Rolls-royce Holdings	92.64	1.7	-
Jd Sports Fashion	122.15	1.7	-
Intertek	4030.00	1.5	-
Bt	115.20	1.5	-
Persimmon	1258.00	1.5	-
Taylor Wimpey	104.25	1.5	-40.2
Hsbc Holdings	518.00	1.3	15.6
Centrica	97.04	1.2	36.0
Losers			
Scottish Mortgage Investment Trust	690.00	-5.9	-48.2
Ocado	623.80	-4.3	-
Frasers	721.00	-3.0	-7.3
Int Consolidated Airlines S.a.	126.22	-2.6	-
Flutter Entertainment	11380.00	-2.3	-1.9
United Utilities	996.40	-2.1	-9.0
F&c Investment Trust	892.00	-2.0	-4.3
Sage	745.80	-2.0	-
Abrdn	187.55	-1.8	-
Rightmove	517.80	-1.7	-
Entain	1309.00	-1.6	-
Halma	2017.00	-1.5	-

FTSE 250	Dec 28 price(p)	%Chg week	%Chg ytd
Winners			
Clarkson	3250.00	6.9	-
Synthomer	146.10	5.3	-
Abrdn Private Equity Opportunities Trust	435.00	5.3	-
Drax	708.50	4.9	15.5
Marshalls	277.40	4.8	-
Capricorn Energy	261.00	4.7	40.3
Volution	365.50	4.4	-
Morgan Advanced Materials	319.00	4.4	-
Barr (a.g.)	536.00	3.9	0.6
Lancashire Holdings	651.00	3.8	24.1
Vesuvius	405.40	3.8	-8.8
Hammerson	24.05	3.8	-28.2
Losers			
Carnival	566.20	-7.3	-
Puretech Health	259.50	-6.0	-
Darktrace	255.80	-5.7	-
Coats	68.10	-4.8	-1.7
Polar Capital Technology Trust	1708.00	-4.3	-37.8
Fdm (holdings)	733.00	-3.9	-42.7
Easyjet	332.80	-3.7	-
Bridgepoint	186.10	-3.3	-
W.a.g Payment Solutions	76.50	-3.3	-
Wizz Air Holdings	1999.50	-3.2	-
Petershill Partners	165.00	-2.9	-
Helios Towers	100.80	-2.9	-

FTSE SmallCap	Dec 28 price(p)	%Chg week	%Chg ytd
Winners			
Superdry	125.00	23.5	-
On The Beach	165.60	9.7	-
Saga	133.80	9.3	-
Hochschild Mining	71.85	8.3	-
Abrdn Property ome Trust	62.30	8.0	-
Trifast	74.00	7.6	-55.9
Dignity	422.00	7.0	-29.0
Oxford Biomedica	444.00	6.7	-
Fisher (james) & Sons	395.00	6.2	8.7
Luceco	96.20	5.6	-
Hollywood Bowl	244.00	5.4	3.4
Capital & Regional	60.00	5.3	4.9
Losers			
Topps Tiles	48.05	-8.7	-
Trustpilot	92.60	-8.2	-
Chrysalis Investments	75.70	-7.8	-
Keystone Positive Change Investment Trust	201.50	-5.4	-
Baillie Gifford Us Growth Trust	145.80	-5.2	-
City Of London Investment	427.00	-5.1	-
Hostelworld	115.00	-4.2	66.2
Industrials Reit	124.00	-3.9	-
Home Reit	37.80	-3.7	-
Foxtons	29.00	-3.7	-
Manchester & London Investment Trust	320.00	-3.6	-
Taylor Maritime Investments	90.00	-3.2	-9.5

Industry Sectors	Dec 28 price(p)	%Chg week	%Chg ytd
Winners			
Nonlife Insurance	3352.25	1.5	2.1
Life Insurance	7067.59	1.3	-7.5
Household Goods	10189.31	1.3	-
Mining	11211.99	1.1	-43.0
Banks	3311.86	0.9	8.7
Aerospace & Defense	5178.40	0.9	23.9
Industrial Metals	7911.05	0.6	24.6
Food Producers	5716.49	0.6	-
Electricity	10718.86	0.5	6.0
General Retailers	3383.10	0.5	16.9
Personal Goods	30810.15	0.4	-
Media	9147.34	0.3	-6.3
Losers			
Travel & Leisure	6250.36	-1.6	-
Software & Computer Services	1766.80	-1.4	-21.0
Electronic & Electrical Equip.	8784.09	-0.9	-
Beverages	27958.09	-0.7	-
Equity Investment Instruments	11181.69	-0.6	-
Food & Drug Retailers	4134.78	-0.4	-5.5
Real Estate & Investment Servic	2140.63	-0.3	-
General Industrials	6079.54	-0.3	-
Tobacco	36173.94	-0.3	23.6
Industrial Transportation	3503.59	-0.3	-
Health Care Equip.& Services	10866.31	-0.2	31.7
Construction & Materials	6847.92	-0.1	-

Based on last week's performance. †Price at suspension.

CURRENCIES

Dec 28	Currency	DOLLAR Closing Mid	DOLLAR Day's Change	EURO Closing Mid	EURO Day's Change	POUND Closing Mid	POUND Day's Change
Argentina	Argentine Peso	176.3790	0.2820	187.2886	-0.2462	212.2644	0.6323
Australia	Australian Dollar	1.4803	-0.0031	1.5718	-0.0079	1.7815	-0.0012
Bahrain	Bahrainin Dinar	0.3771	0.0000	0.4004	-0.0011	0.4538	0.0007
Bolivia	Bolivian Boliviano	6.9100	-	7.3374	-0.0214	8.3159	0.0115
Brazil	Brazilian Real	5.2706	-0.0203	5.5966	-0.0379	6.3429	-0.0156
Canada	Canadian Dollar	1.3589	0.0090	1.4429	0.0054	1.6353	0.0131
Chile	Chilean Peso	858.7000	-15.3500	911.8132	-19.0077	1033.4080	-17.0193
China	Chinese Yuan	6.9721	0.0088	7.4033	-0.0122	8.3906	0.0222
Colombia	Colombian Peso	4765.2400	-7.9750	5059.9861	-23.2571	5734.7604	-1.6580
Costa Rica	Costa Rican Colon	586.1950	2.9700	622.4529	1.3466	705.4601	4.5443
Czech Republic	Czech Koruna	22.8130	0.0420	24.2241	-0.0260	27.4544	0.0884
Denmark	Danish Krone	7.0034	0.0204	7.4366	0.0000	8.4283	0.0362
Egypt	Egyptian Pound	24.7566	0.0844	26.2879	0.0132	29.7935	0.1426
Hong Kong	Hong Kong Dollar	7.7918	-0.0091	8.2737	-0.0338	9.3770	0.0020
Hungary	Hungarian Forint	378.9142	0.8213	402.3511	-0.2995	456.0066	1.6172
India	Indian Rupee	82.8675	0.0050	87.9931	-0.2514	99.7274	0.1438
Indonesia	Indonesian Rupiah	15702.5000	40.0000	16673.7530	-6.0629	18897.3045	74.2003
Israel	Israeli Shekel	3.5391	0.0202	3.7580	0.0105	4.2592	0.0301
Japan	Japanese Yen	134.2250	0.8750	142.5272	0.5159	161.5339	1.2748
..One Month		134.2244	0.8738	142.5269	0.5154	161.5334	1.2737
..Three Month		134.2233	0.8717	142.5264	0.5143	161.5323	1.2716
..One Year		134.2184	0.8618	142.5229	0.5073	161.5334	1.2672
Kenya	Kenyan Shilling	123.2500	-	130.8734	-0.3819	148.3260	0.2050
Kuwait	Kuwaiti Dinar	0.3064	0.0001	0.3254	-0.0009	0.3687	0.0006
Malaysia	Malaysian Ringgit	4.4225	-0.0005	4.6960	-0.0142	5.3223	0.0068
Mexico	Mexican Peso	19.4165	-0.0155	20.6175	-0.0767	23.3669	0.0137
New Zealand	New Zealand Dollar	1.5804	-0.0104	1.6782	-0.0160	1.9019	-0.0099
Nigeria	Nigerian Naira	460.7500	5.0000	489.2488	3.8972	554.4925	6.7753
Norway	Norwegian Krone	9.8882	0.0767	10.4998	0.0510	11.9000	0.1086
Pakistan	Pakistani Rupee	225.9000	-0.1000	239.8726	-0.8064	271.8608	0.2555
Peru	Peruvian Nuevo Sol	3.8105	-0.0102	4.0462	-0.0227	4.5858	-0.0059
Philippines	Philippine Peso	56.1900	0.2750	59.6655	0.1188	67.6222	0.4240
Poland	Polish Zloty	4.4208	0.0140	4.6942	0.0013	5.3202	0.0242
Romania	Romanian Leu	4.6555	0.0304	4.9435	0.0179	5.6027	0.0443
Russia	Russian Ruble	72.6250	1.8500	77.1171	1.7451	87.4010	2.3441
Saudi Arabia	Saudi Riyal	3.7595	0.0007	3.9920	-0.0109	4.5244	0.0071
Singapore	Singapore Dollar	1.3491	0.0029	1.4325	-0.0011	1.6235	0.0057
South Africa	South African Rand	17.1263	-0.1713	18.1856	-0.2354	20.6107	-0.1773
South Korea	South Korean Won	1267.1000	-4.1500	1345.4741	-8.3455	1524.8996	-2.8800
Sweden	Swedish Krona	10.4561	0.0053	11.1028	-0.0267	12.5834	0.0238
Switzerland	Swiss Franc	0.9284	-0.0004	0.9858	-0.0032	1.1173	0.0011
Taiwan	New Taiwan Dollar	30.7235	0.0240	32.6238	-0.0696	36.9744	0.0799
Thailand	Thai Baht	34.7525	0.1375	36.9020	0.0388	41.8231	0.2230
Tunisia	Tunisian Dinar	3.1301	0.0175	3.3237	0.0089	3.7669	0.0262
Turkey	Turkish Lira	18.7118	0.0007	19.8691	-0.0572	22.5188	0.0320
United Arab Emirates	UAE Dirham	3.6727	0.0000	3.8998	-0.0114	4.4199	0.0060
United Kingdom	Pound Sterling	0.8309	-0.0012	0.8823	-0.0038	-	-
..One Month		0.8310	-0.0012	0.8822	-0.0038	-	-
..Three Month		0.8312	-0.0012	0.8820	-0.0038	-	-
..One Year		0.8316	-0.0012	0.8811	-0.0038	-	-
United States	United States Dollar	-	-	1.0619	-0.0031	1.2035	0.0017
..One Month		-	-	1.0616	-0.1399	1.2036	0.0017
..Three Month		-	-	1.0612	-0.1399	1.2037	0.0017
..One Year		-	-	1.0597	-0.1399	1.2041	0.0017
Vietnam	Vietnamese Dong	23590.0000	-10.0000	25049.1590	-83.7312	28389.5731	27.2156
European Union	Euro	0.9417	0.0027	-	-	1.1334	0.0049
..One Month		0.9415	0.0028	-	-	1.1332	0.0049
..Three Month		0.9411	0.0027	-	-	1.1330	0.0049
..One Year		0.9396	0.0027	-	-	1.1321	0.0049

Rates are derived from WM Reuters Spot Rates and MorningStar (latest rates at time of production). Some values are rounded. Currency redenominated by 1000. The exchange rates printed in this table are also available at www.FT.com/marketsdata

FTSE ACTUARIES SHARE INDICES

UK SERIES www.ft.com/equities

Produced in conjunction with the Institute and Faculty of Actuaries

	£ Strlg Dec 28	Day's chge%	Euro Index	£ Strlg Dec 23	£ Strlg Dec 22	Year ago	Div yield%	Cover	P/E ratio	X/D adj	Total Return
FTSE 100 (100)	7497.19	0.32	6620.70	7473.01	7469.28	7372.10	3.63	1.61	17.10	272.44	7703.54
FTSE 250 (250)	18885.50	0.29	16677.61	18830.08	18762.07	23270.43	3.21	0.78	39.97	557.39	15728.18
FTSE 250 ex Inv Co (171)	19352.37	0.36	17089.91	19283.17	19202.48	24101.29	3.32	1.62	18.61	590.06	16445.39
FTSE 350 (350)	4136.27	0.32	3652.70	4123.10	4119.19	4216.17	3.57	1.50	18.64	146.16	8434.13
FTSE 350 ex Investment Trusts (268)	4079.40	0.35	3602.48	4065.07	4061.67	4110.22	3.62	1.70	16.25	146.33	4298.96
FTSE 350 Higher Yield (132)	3581.28	0.34	3162.60	3569.00	3562.56	3329.63	4.99	1.74	11.53	169.23	8244.26
FTSE 350 Lower Yield (218)	4264.39	0.29	3765.85	4251.92	4251.71	4852.96	2.08	0.91	52.74	92.89	5251.88
FTSE SmallCap (235)	6221.97	0.16	5494.56	6211.90	6173.84	7370.26	3.52	-0.24	-117.36	210.45	10476.20
FTSE SmallCap ex Inv Co (126)	4999.75	0.40	4415.23	4979.87	4932.29	6147.71	3.73	2.32	11.55	164.16	8754.40
FTSE All-Share (585)	4096.54	0.32	3617.61	4083.66	4079.25	4194.35	3.57	1.46	19.20	144.56	8435.10
FTSE All-Share ex Inv Co (394)	4005.40	0.35	3537.13	3991.29	3987.47	4048.26	3.62	1.71	16.16	143.50	4285.63
FTSE All-Share ex Multinationals (522)	1063.86	0.31	779.68	1060.57	1057.61	1337.32	4.00	0.82	30.67	41.02	2268.11
FTSE Fledgling (81)	11570.28	0.34	10217.61	11531.44	11559.72	13161.30	3.77	3.06	8.68	376.63	25113.14
FTSE Fledgling ex Inv Co (31)	15064.26	0.74	13303.11	14954.00	15020.64	17566.85	3.57	7.68	3.64	470.00	31716.87
FTSE All-Small (316)	4338.63	0.17	3831.40	4331.19	4306.70	5128.14	3.53	-0.05	-581.83	146.49	9369.96
FTSE All-Small ex Inv Co (157)	3761.33	0.41	3321.60	3745.93	3711.99	4615.91	3.72	2.50	10.73	123.30	8340.70
FTSE AIM All-Share (736)	832.28	0.04	734.98	831.96	826.18	1198.32	1.70	1.69	34.84	13.42	978.59
FTSE All-Share Technology (20)	1889.86	-0.01	1565.83	1889.97	1889.95	2373.00	2.02	0.89	55.67	39.97	2737.89
FTSE All-Share Telecommunications (6)	1402.14	0.61	1161.73	1393.69	1393.31	1864.40	7.55	1.04	12.76	99.22	2143.97
FTSE All-Share Health Care (14)	14683.77	-0.07	12166.09	14693.74	14752.80	13126.34	2.56	1.05	37.40	374.42	13600.02
FTSE All-Share Financials (255)	4567.52	0.54	3784.37	4543.10	4537.95	4900.24	3.71	0.90	30.03	167.29	5084.77
FTSE All-Share Real Estate (55)	815.04	0.12	706.43	814.03	807.28	1223.34	4.36	3.63	6.32	34.25	860.24
FTSE All-Share Consumer Discretionary (83)	4525.41	0.39	3749.48	4507.68	4509.14	5476.17	2.43	1.27	32.53	108.48	4801.18
FTSE All-Share Consumer Staples (24)	19540.61	0.24	16190.18	19494.23	19508.64	19702.33	3.92	1.13	22.60	765.85	17984.88
FTSE All-Share Industrials (84)	6234.29	0.68	5165.36	6192.43	6184.56	7378.20	2.30	1.36	32.08	139.01	7221.22
FTSE All-Share Basic Materials (22)	9410.18	0.50	7796.71	9363.21	9289.39	8188.74	5.78	2.01	8.61	539.20	12828.87
FTSE All-Share Energy (13)	8489.18	-0.33	7033.62	8517.45	8479.74	6023.25	3.56	2.82	9.98	303.49	10330.19
FTSE All-Share Utilities (9)	8562.01	0.95	7093.97	8481.63	8509.01	8761.77	4.49	0.57	38.88	384.09	13071.71
FTSE All-Share Software and Computer Services (18)	2037.11	0.01	1687.83	2036.81	2037.56	2552.86	2.02	0.89	55.60	43.17	3122.25
FTSE All-Share Technology Hardware and Equipment (2)	5079.70	-1.34	4208.73	5148.75	5021.31	6538.82	2.37	0.69	60.72	92.89	6584.01
FTSE All-Share Telecommunications Equipment (1)	588.35	1.15	487.47	581.65	592.82	642.61	2.09	2.31	20.73	11.51	841.00
FTSE All-Share Telecommunications Service Providers (5)	2146.87	0.58	1778.77	2134.50	2131.89	2876.82	7.82	1.02	12.52	157.08	2991.98
FTSE All-Share Health Care Providers (3)	10951.57	0.00	9073.82	10952.04	10959.37	8396.22	0.53	4.88	38.48	58.27	10164.83
FTSE All-Share Medical Equipment and Services (2)	5543.94	-0.42	4593.38	5567.05	5536.74	5900.24	2.58	0.97	40.23	142.76	5355.24
FTSE All-Share Pharmaceuticals and Biotechnology (9)	21015.30	-0.05	17412.01	21025.80	21121.71	18625.78	2.58	1.04	37.25	539.80	17526.55
FTSE All-Share Banks (12)	3268.38	1.13	2707.98	3231.76	3237.40	2999.66	3.99	2.63	9.53	129.94	2893.72
FTSE All-Share Finance and Credit Services (8)	9947.23	0.34	8241.68	9913.32	9970.56	10033.35	2.13	2.28	20.62	210.32	13367.37
FTSE All-Share Investment Banking and Brokerage Services (31)	8381.80	0.56	6944.66	8335.23	8317.50	10648.99	5.29	1.55	12.23	440.48	11844.65
FTSE All-Share Closed End Investments (191)	11524.13	-0.25	9548.20	11553.43	11519.81	14206.84	2.77	-3.45	-10.48	308.94	7226.37
FTSE All-Share Life Insurance (6)	7188.93	0.56	5956.32	7149.17	7095.52	7766.91	4.26	1.08	21.71	294.59	8797.43
FTSE All-Share Nonlife Insurance (7)	3771.35	0.59	3124.71	3749.32	3735.60	3663.54	3.80	1.24	21.25	130.27	8031.62
FTSE All-Share Real Estate Investment and Services (10)	2050.50	-0.09	1698.92	2052.38	2042.32	3137.09	2.48	3.66	11.04	43.02	6119.91
FTSE All-Share Real Estate Investment Trusts (45)	2027.32	0.16	1679.72	2024.02	2006.02	3022.09	4.70	3.62	5.87	93.67	3085.64
FTSE All-Share Automobiles and Parts (2)	1468.89	1.24	1217.03	1450.97	1444.94	3546.28	0.77	-34.22	-3.79	14.02	1528.15
FTSE All-Share Consumer Services (2)	3176.71	-0.16	2632.03	3181.73	3184.88	2730.44	1.21	2.76	29.98	38.43	4029.65
FTSE All-Share Household Goods and Home Construction (11)	8513.95	1.30	7054.15	8405.10	8368.61	14854.70	8.73	1.60	7.15	710.24	7661.26
FTSE All-Share Leisure Goods (2)	23227.93	1.84	19245.27	22809.01	22809.01	25356.76	2.91	1.59	21.57	831.45	25959.06
FTSE All-Share Personal Goods (4)	26529.00	1.78	21980.34	26065.28	26213.63	30789.42	2.12	2.80	16.84	558.37	20866.26
FTSE All-Share Media (11)	9390.85	0.58	7780.69	9336.86	9351.39	9950.84	2.36	1.47	28.89	221.42	6607.42
FTSE All-Share Retailers (22)	1847.94	0.81	1531.09	1833.17	1829.59	2783.77	2.98	3.08	10.90	54.81	2412.27
FTSE All-Share Travel and Leisure (29)	6121.87	-0.38	5072.21	6145.14	6148.19	7535.11	0.66	-7.30	-20.70	40.99	6331.99
FTSE All-Share Beverages (5)	28077.31	0.53	23263.17	27929.09	28036.65	31051.31	2.14	2.00	23.38	601.76	22515.41
FTSE All-Share Food Producers (10)	5920.31	0.53	4905.22	5889.38	5853.45	6855.74	2.61	2.27	16.89	152.70	5766.90
FTSE All-Share Tobacco (2)	36174.00	0.52	29971.61	35986.06	36040.77	29415.36	6.57	0.87	17.56	2373.83	34418.00
FTSE All-Share Construction and Materials (15)	7270.78	0.36	6024.13	7244.57	7229.05	8969.71	3.18	0.66	47.92	230.56	8871.81
FTSE All-Share Aerospace and Defense (7)	5434.04	1.22	4502.32	5368.55	5391.45	4384.22	2.16	0.10	464.82	104.10	6627.85
FTSE All-Share Electronic and Electrical Equipment (11)	10342.87	0.82	8569.48	10258.68	10243.14	14170.42	1.71	2.07	28.19	176.09	10243.96
FTSE All-Share General Industrials (8)	4891.82	0.25	4053.07	4879.75	4868.34	5674.64	2.96	1.22	27.62	151.23	6473.21
FTSE All-Share Industrial Engineering (5)	15408.50	0.64	12766.56	15310.93	15162.50	19832.67	1.70	2.01	29.34	261.52	20697.79
FTSE All-Share Industrial Support Services (30)	9650.96	0.58	7996.21	9595.11	9579.35	12356.35	1.99	1.67	30.00	196.21	11115.26
FTSE All-Share Industrial Transportation (8)	5293.67	1.11	4386.02	5235.38	5229.47	6937.72	2.10	3.34	14.24	102.86	5551.16
FTSE All-Share Industrial Materials (1)	17103.19	-1.16	538.34	17303.23	17303.23	19503.64	1.92	1.81	28.75	329.06	21603.88
FTSE All-Share Industrial Metals and Mining (9)	8518.14	0.50	7057.62	8475.83	8407.41	6825.57	6.15	2.02	8.05	517.75	13075.86
FTSE All-Share Precious Metals and Mining (5)	10605.49	1.01	8787.07	10499.75	10442.55	18553.53	3.40	1.83	16.09	358.99	7477.24
FTSE All-Share Chemicals (7)	12992.36	0.35	10764.69	12947.42	12858.83	18199.60	2.69	1.82	20.37	355.95	13053.20
FTSE All-Share Oil. Gas and Coal (12)	8241.14	-0.33	6828.11	8268.59	8231.95	5845.50	3.56	2.82	9.98	294.63	10400.29
FTSE Sector Indices											
Non Financials (330)	**5006.24**	**0.25**	**4420.96**	**4993.66**	**4988.36**	**5056.01**	**3.53**	**1.63**	**17.39**	**174.82**	**9070.98**

Hourly movements	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High/day	Low/day
FTSE 100	7528.66	7521.61	7536.28	7534.57	7544.14	7539.93	7532.12	7515.97	7504.68	7546.59	7493.06
FTSE 250	18918.24	18863.95	18876.34	18928.23	18914.80	18918.63	18894.55	18894.45	18864.40	18934.24	18845.01
FTSE SmallCap	6205.82	6203.83	6211.75	6217.93	6219.17	6224.22	6225.74	6224.08	6213.30	6228.54	6197.75
FTSE All-Share	4111.62	4106.72	4113.91	4114.81	4118.79	4117.07	4112.80	4105.41	4099.17	4119.85	4094.11

Time of FTSE 100 Day's high:08:20:45 Day's Low15:31:30 FTSE 100 2010/11 High: 7672.40(10/02/2022) Low: 6826.15(12/10/2022)
Time of FTSE All-Share Day's high:12:08:00 Day's Low15:32:00 FTSE 100 2010/11 High: 4296.96(10/02/2022) Low: 3712.50(12/10/2022)

Further information is available on http://www.ftse.com © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence. † Sector P/E ratios greater than 80 are not shown. For changes to FTSE Fledgling Index constituents please refer to www.ftse.com/indexchanges. ‡ Values are negative.

FT 30 INDEX

	Dec 28	Dec 27	Dec 26	Dec 23	Dec 22	Yr Ago	High	Low
FT 30	2462.80	2451.00	2452.90	2471.60	2426.50	0.00	2880.10	2152.10
FT 30 Div Yield	-	-	-	-	-	0.00	3.93	2.74
P/E Ratio net	-	-	-	-	-	0.00	19.44	14.26

FT 30 hourly changes

8	9	10	11	12	13	14	15	16	High	Low
2451	2464.6	2471.2	2474.4	2474.1	2474.6	2471.8	2468	2464.8	2477	2451.0

FT30 constituents and recent additions/deletions can be found at www.ft.com/ft30

FT WILSHIRE 5000 INDEX SERIES

	Dec 27		Dec 27
FT Wilshire 5000	38774.64	FT Wilshire Mid Cap	5322.24
FT Wilshire 2500	4966.12	FT Wilshire Small Cap	4746.67
FT Wilshire Mega Cap	4928.63	FT Wilshire Micro Cap	4552.71
FT Wilshire Large Cap	4994.04		

Source: Wilshire. Wilshire Advisors LLC (Wilshire) is an investment advisor registered with the SEC. Further information is available at https://www.wilshire.com/solutions/indexes . Wilshire® is a registered service mark. Copyright ©2022 Wilshire. All rights reserved.

FTSE GLOBAL EQUITY INDEX SERIES

Dec 28 Regions & countries	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
FTSE Global All Cap	9441	679.85	-0.1	-3.1	-19.7	1090.87	-18.0	2.4
FTSE Global All Cap	9441	679.85	-0.1	-3.1	-19.7	1090.87	-18.0	2.4
FTSE Global Large Cap	1897	607.67	-0.1	-3.1	-20.0	1005.01	-18.2	2.4
FTSE Global Mid Cap	2257	883.82	0.1	-2.8	-17.6	1334.48	-15.8	2.3
FTSE Global Small Cap	5287	900.10	0.0	-3.9	-21.4	1298.88	-19.8	2.2
FTSE All-World	4154	399.75	-0.1	-3.1	-19.5	679.30	-17.8	2.4
FTSE World	2663	724.00	-0.2	-3.5	-19.4	1651.04	-17.6	2.4
FTSE Global All Cap ex UNITED KINGDOM In	9152	717.20	-0.1	-3.2	-20.0	1128.67	-18.3	2.3
FTSE Global All Cap ex USA	7634	490.56	0.4	-0.3	-18.2	873.16	-15.6	3.3
FTSE Global All Cap ex JAPAN	8037	708.46	-0.1	-3.3	-19.9	1146.91	-18.1	2.3
FTSE Global All Cap ex Eurozone	8782	718.18	-0.2	-3.4	-19.7	1127.35	-18.0	2.3
FTSE Developed	2173	664.27	-0.1	-3.6	-19.5	1072.95	-17.8	2.2
FTSE Developed All Cap	5815	691.93	-0.1	-3.7	-19.7	1101.12	-18.0	2.2
FTSE Developed Large Cap	832	621.64	-0.2	-3.7	-19.8	1021.91	-18.1	2.2
FTSE Developed Europe Large Cap	218	380.59	0.5	-0.4	-15.3	754.66	-12.6	3.2
FTSE Developed Europe Mid Cap	353	567.89	0.3	-1.5	-26.4	977.77	-24.2	3.1
FTSE Dev Europe Small Cap	744	798.73	0.2	-1.5	-27.7	1320.95	-25.6	3.2
FTSE North America Large Cap	235	818.79	-0.5	-5.2	-21.5	1231.95	-20.2	1.8
FTSE North America Mid Cap	422	1093.07	-0.1	-4.0	-16.4	1521.48	-14.9	1.9
FTSE North America Small Cap	1330	1059.92	-0.3	-5.5	-19.7	1413.56	-18.5	1.7
FTSE North America	657	538.37	-0.4	-5.0	-20.5	828.22	-19.2	1.8
FTSE Developed ex North America	1516	261.40	0.4	-0.5	-17.1	500.84	-14.6	3.2
FTSE Japan Large Cap	169	371.06	-0.2	-1.6	-18.6	545.51	-16.6	2.6
FTSE Japan Mid Cap	339	528.04	0.4	-0.2	-14.0	737.33	-11.8	2.7
FTSE Global wi JAPAN Small Cap	896	589.00	0.5	-0.2	-15.3	854.12	-13.0	2.8
FTSE Japan	508	153.08	-0.1	-1.3	-17.7	252.00	-15.6	2.6
FTSE Asia Pacific Large Cap ex Japan	1080	673.82	0.6	2.6	-19.2	1229.38	-16.8	3.2
FTSE Asia Pacific Mid Cap ex Japan	859	966.64	0.9	2.7	-14.7	1700.53	-12.0	3.5
FTSE Asia Pacific Small Cap ex Japan	2053	536.08	0.9	0.6	-26.4	915.71	-24.3	3.2
FTSE Asia Pacific Ex Japan	1939	537.12	0.6	2.6	-18.7	1041.52	-16.3	3.2
FTSE Emerging All Cap	3626	702.79	0.2	2.0	-20.2	1227.93	-17.4	3.6
FTSE Emerging Large Cap	1065	648.76	0.2	2.3	-21.2	1140.20	-18.4	3.6
FTSE Emerging Mid Cap	916	1019.88	-0.1	1.0	-11.3	1791.91	-8.0	3.8
FTSE Emerging Small Cap	1645	752.04	0.3	0.6	-22.4	1256.23	-19.8	3.5
FTSE Emerging Europe	116	127.46	-0.8	6.9	-69.2	267.29	-67.9	2.8
FTSE Latin America All Cap	261	698.77	-2.1	-0.9	-1.4	1394.54	7.9	10.1
FTSE Middle East and Africa All Cap	331	720.65	0.1	-4.6	-9.5	1321.73	-6.7	3.3
FTSE Global wi UNITED KINGDOM All Cap In	289	314.58	-0.4	-1.2	-12.6	644.48	-9.4	3.6
FTSE Global wi USA All Cap	1807	923.63	-0.4	-5.0	-20.8	1339.60	-19.5	1.7
FTSE Europe All Cap	1466	430.74	0.4	-0.6	-19.5	820.04	-17.0	3.2
FTSE Eurozone All Cap	659	416.72	0.6	-0.5	-19.6	787.14	-17.1	3.2
FTSE EDHEC-Risk Efficient All-World	4154	464.08	0.2	-2.1	-15.0	732.10	-12.9	2.7
FTSE EDHEC-Risk Efficient Developed Europe	571	314.58	0.3	-0.8	-23.8	553.90	-21.5	3.3
Oil & Gas	129	411.65	0.7	-3.1	25.6	846.79	31.9	4.7
Oil & Gas Producers	86	410.01	0.8	-3.1	29.1	866.65	36.1	5.0

Dec 28 Sectors	No of stocks	US $ indices	Day %	Mth %	YTD %	Total retn	YTD %	Gr Div Yield
Oil Equipment & Services	24	281.28	0.6	-2.5	20.2	522.57	25.3	4.2
Basic Materials	391	602.38	0.2	-0.9	-10.4	1111.40	-6.4	4.4
Chemicals	194	784.75	0.0	-4.4	-19.0	1390.99	-16.6	3.2
Forestry & Paper	20	254.00	0.2	-1.1	-16.8	515.21	-13.7	4.0
Industrial Metals & Mining	99	500.47	0.8	1.8	-9.5	960.07	-4.6	5.1
Mining	78	984.21	0.3	3.2	5.7	1921.77	12.4	5.8
Industrials	802	489.46	0.3	-2.9	-18.5	781.86	-16.8	2.1
Construction & Materials	156	560.58	0.3	-2.8	-24.2	944.61	-22.5	2.3
Aerospace & Defense	35	903.09	0.6	1.2	12.4	1411.23	14.2	1.5
General Industrials	76	238.78	0.5	-2.5	-13.9	422.56	-11.7	2.6
Electronic & Electrical Equipment	157	601.47	0.3	-5.4	-25.2	864.99	-24.0	1.6
Industrial Engineering	158	989.87	0.5	-2.0	-14.4	1575.36	-12.7	2.0
Industrial Transportation	131	915.18	0.4	-1.6	-17.6	1492.44	-14.8	3.6
Support Services	89	503.97	0.0	-5.5	-29.1	750.78	-28.0	1.6
Consumer Goods	566	537.53	-0.1	-2.9	-22.0	905.41	-20.3	2.5
Automobiles & Parts	132	423.42	-3.0	-16.4	-45.2	684.28	-44.4	2.5
Beverages	72	781.08	0.4	1.0	-3.1	1330.76	-0.9	2.2
Food Producers	134	726.99	0.6	-0.3	-7.4	1254.51	-5.3	2.5
Household Goods & Home Construction	64	542.92	0.5	2.9	-17.0	915.85	-14.8	2.7
Leisure Goods	53	228.24	-0.3	-3.5	-28.3	323.00	-27.4	1.5
Personal Goods	97	928.60	1.5	4.0	-19.6	1432.17	-18.1	1.9
Tobacco	14	1014.55	0.4	2.4	5.5	2909.39	11.9	6.0
Health Care	339	727.12	-0.2	0.0	-7.9	1160.23	-6.3	1.7
Health Care Equipment & Services	132	1372.93	0.2	-0.8	-17.5	1686.05	-16.7	1.0
Pharmaceuticals & Biotechnology	207	494.93	-0.4	0.5	-0.4	849.19	1.9	2.2
Consumer Services	428	514.46	-0.4	-3.4	-27.0	735.25	-26.1	1.3
Food & Drug Retailers	69	318.54	-0.1	-2.7	-7.5	507.06	-5.3	2.4
General Retailers	141	892.92	-0.5	-3.9	-30.2	1221.29	-29.5	1.0
Media	75	287.03	-1.0	-5.7	-38.8	412.76	-38.1	1.4
Travel & Leisure	143	444.09	0.3	-0.9	-13.4	649.19	-12.4	1.2
Telecommunication	89	129.01	0.6	-2.7	-13.0	304.76	-9.4	4.4
Fixed Line Telecommuniations	31	100.57	0.5	-3.0	-10.8	273.45	-6.2	5.2
Mobile Telecommunications	58	152.66	0.7	-2.5	-14.1	310.35	-11.1	3.9
Utilities	199	323.26	0.3	0.5	-5.8	757.74	-2.8	3.3
Electricity	141	366.59	0.3	0.8	-4.9	845.80	-2.0	3.1
Gas Water & Multiutilities	58	317.49	0.3	-0.1	-7.9	771.29	-4.6	3.6
Financials	852	259.00	0.2	-2.4	-13.7	498.75	-11.0	3.2
Banks	269	197.42	0.4	-2.8	-12.8	423.84	-9.3	4.2
Nonlife Insurance	72	368.08	0.4	1.0	5.0	615.12	8.1	2.8
Life Insurance	52	227.79	0.2	4.1	-5.7	439.69	-2.0	3.8
Financial Services	209	422.14	-0.1	-4.3	-15.4	642.02	-13.9	1.8
Technology	359	439.11	-0.9	-6.6	-35.3	573.52	-34.6	1.2
Software & Computer Services	184	669.19	-0.7	-4.1	-37.4	809.79	-37.1	0.7
Technology Hardware & Equipment	175	385.43	-1.2	-9.1	-32.7	541.97	-31.8	1.7
Alternative Energy	19	183.43	-2.5	-4.1	-12.0	263.26	-11.6	0.4
Real Estate Investment & Services	142	250.20	0.1	-1.0	-24.0	487.86	-21.8	3.2
Real Estate Investment Trusts	108	437.11	-0.1	-3.0	-26.7	1026.07	-24.3	3.9
FTSE Global Large Cap	1897	607.67	-0.1	-3.1	-20.0	1005.01	-18.2	2.4

The FTSE Global Equity Series, launched in 2003, contains the FTSE Global Small Cap Indices and broader FTSE Global All Cap Indices (large/mid/small cap) as well as the enhanced FTSE All-World index Series (large/mid cap) - please see https://research.ftserussell.com/Products/indices/Home/indexfiltergeis?indexName=GEISAC&currency=USD&rtn=CAP&segment=global-developed–emerging. The trade names Fundamental Index® and RAFI® are registered trademarks and the patented and patent-pending proprietary intellectual property of Research Affiliates, LLC (US Patent Nos. 7,620,577; 7,747,502; 7,778,905; 7,792,719; Patent Pending Publ. Nos. US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, US-2010- 0063942-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110). "EDHEC™" is a trade mark of EDHEC Business School As of January 2nd 2006, FTSE is basing its sector indices on the Industrial Classification Benchmark - please see www.ftse.com/icb. For constituent changes and other information about FTSE, please see www.ftse.com. © FTSE International Limited. 2013. All Rights reserved. "FTSE®" is a trade mark of the London Stock Exchange Group companies and is used by FTSE International Limited under licence.

FTSE SECTORS: LEADERS & LAGGARDS

Year to date percentage changes

Oil & Gas Producers	43.84	Consumer Goods	-3.13	Equity Invest Instr	-19.16
Oil & Gas	43.13	Nonlife Insurance	-3.62	Construct & Material	-19.46
Mining	23.76	Gas Water & Multi	-4.40	FTSE 250 Index	-19.57
Tobacco	23.51	Life Insurance	-7.59	Support Services	-20.39
Aerospace & Defense	23.02	Leisure Goods	-8.52	Industrial Eng	-23.11
Basic Materials	14.62	Travel & Leisure	-9.16	Mobile Telecomms	-25.06
Pharmace & Biotech	12.34	Media	-9.27	Telecommunications	-25.29
Health Care	11.30	Beverages	-10.05	Fixed Line Telecomms	-26.22
Banks	8.59	Financials	-11.03	Household Goods & Ho	-26.34
Electricity	6.26	Software & Comp Serv	-13.69	Chemicals	-29.40
Personal Goods	4.18	Technology	-13.84	Electronic & Elec Eq	-30.79
FTSE 100 Index	1.53	Food Producers	-14.37	Food & Drug Retailer	-31.99
Beverages	31.66	Tech Hardware & Eq	-15.43	General Retailers	-33.05
NON FINANCIALS Index	-1.29	Industrials	-15.75	Real Est Invest & Tr	-34.37
Utilities	-1.73	Financial Services	-15.97	Real Est Invest & Se	-35.37
FTSE All{HY-}Share Index	-2.65	FTSE SmallCap Index	-16.59	Industrial Transport	-42.09
Health Care Eq & Srv	-2.87	Consumer Services	-17.00	Automobiles & Parts	-59.72
		Oil Equipment & Serv	-18.99	Industrial Metals &	-78.99

FTSE 100 SUMMARY

FTSE 100	Closing Price	Day's Change
3I Group PLC	1333	17.50
Abrdn PLC	187.55	1.05
Admiral Group PLC	2122	16.00
Airtel Africa PLC	111.00	-1.80
Anglo American PLC	3286	36.50
Antofagasta PLC	1586.5	42.50
Ashtead Group PLC	4778	57.00
Associated British Foods PLC	1588.5	1.50
Astrazeneca PLC	11250	12.00
Auto Trader Group PLC	521.00	2.80
Aveva Group PLC	3215	-5.00
Aviva PLC	447.60	3.60
B&M European Value Retail S.A.	410.20	1.40
Bae Systems PLC	867.00	12.00
Barclays PLC	158.88	1.14
Barratt Developments PLC	409.90	6.20
Beazley PLC	678.00	-0.50
Berkeley Group Holdings (The) PLC	3848	12.00
BP PLC	480.40	1.50
British American Tobacco PLC	3332.5	16.00
British Land Company PLC	396.00	1.90
Bt Group PLC	115.20	1.20
Bunzl PLC	2770	-8.00
Burberry Group PLC	2035	31.00
Centrica PLC	97.04	0.32
Coca-Cola Hbc AG	1934	-16.50
Compass Group PLC	1928.5	-3.50
Convatec Group PLC	233.00	0.60
Crh PLC	3287.5	17.50
Croda International PLC	6674	28.00
Dcc PLC	4099	32.00
Diageo PLC	3668.5	21.00
Endeavour Mining PLC	1770	-1.00
Entain PLC	1309	-1.50
Experian PLC	2848	41.00
F&C Investment Trust PLC	892.00	-3.00
Flutter Entertainment PLC	11380	-120.00
Frasers Group PLC	721.00	-7.00
Fresnillo PLC	891.60	19.00
Glaxosmithkline PLC	1440.2	-12.60
Glencore PLC	559.70	1.70
Haleon PLC	327.05	2.95
Halma PLC	2017	26.50
Hargreaves Lansdown PLC	857.80	7.20
Homeserve PLC	1196	-1.00
HSBC Holdings PLC	518.00	7.70
Imperial Brands PLC	2096	14.00
Informa PLC	616.60	1.40
Intercontinental Hotels Group PLC	4759	34.00
International Consolidated Airlines Group S.A.	126.22	-1.96
Intertek Group PLC	4030	32.00
Jd Sports Fashion PLC	122.15	2.60
Kingfisher PLC	236.10	4.00
Land Securities Group PLC	623.20	5.00
Legal & General Group PLC	251.70	1.10
Lloyds Banking Group PLC	46.24	0.21
London Stock Exchange Group PLC	7128	-2.00
M&G PLC	188.05	0.90
Melrose Industries PLC	132.70	1.65
Mondi PLC	1418.5	0.50
National Grid PLC	1001.5	11.90
Natwest Group PLC	267.50	3.00
Next PLC	5658	52.00
Ocado Group PLC	623.80	-2.80
Pearson PLC	937.60	-
Pershing Square Holdings LTD	2880	-10.00
Persimmon PLC	1258	20.50
Phoenix Group Holdings PLC	610.80	-1.00
Prudential PLC	1123.5	7.00
Reckitt Benckiser Group PLC	5756	46.00
Relx PLC	2320	21.00
Rentokil Initial PLC	516.60	2.00
Rightmove PLC	517.80	1.20
Rio Tinto PLC	5818	10.00
Rolls-Royce Holdings PLC	92.64	0.96
Rs Group PLC	908.00	-1.00
Sage Group PLC	745.80	-
Sainsbury (J) PLC	218.50	-0.80
Schroders PLC	438.40	0.30
Scottish Mortgage Investment Trust PLC	690.00	-31.60
Segro PLC	762.40	2.40
Severn Trent PLC	2676	24.00
Shell PLC	2350	-16.50
Smith & Nephew PLC	1098	-7.50
Smith (Ds) PLC	322.50	-2.00
Smiths Group PLC	1600	9.50
Smurfit Kappa Group PLC	3099	21.00
Spirax-Sarco Engineering PLC	10760	80.00
Sse PLC	1719	12.00
St. James's Place PLC	1096.5	5.50
Standard Chartered PLC	629.20	4.20
Taylor Wimpey PLC	104.25	1.10
Tesco PLC	223.50	-3.20
Unilever PLC	4205.5	-8.50
Unite Group PLC	910.00	9.00
United Utilities Group PLC	996.40	9.60
Vodafone Group PLC	84.47	0.57
Weir Group PLC	1681.5	8.00
Whitbread PLC	2622	-2.00
Wpp PLC	816.20	-0.40

UK STOCK MARKET TRADING DATA

	Dec 28	Dec 23	Dec 22	Dec 21	Dec 20	Yr Ago
Order Book Turnover (m)	132.92	108.08	19.81	19.81	19.81	1264.55
Order Book Bargains	453169.00	205069.00	204940.00	204940.00	204940.00	501851.00
Order Book Shares Traded (m)	773.00	652.00	353.00	353.00	353.00	844.00
Total Equity Turnover (£m)	2956.90	5138.07	3248.46	3248.46	3248.46	6169.68
Total Mkt Bargains	589639.00	328075.00	318030.00	318030.00	318030.00	655811.00
Total Shares Traded (m)	3847.00	3592.00	3185.00	3185.00	3185.00	4339.00

† Excluding intra-market and overseas turnover. *UK only total at 6pm. ‡ UK plus intra-market turnover. (u) Unavaliable. (c) Market closed.

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar or the FT. The FT does not warrant nor guarantee that the information is reliable or complete. The FT does not accept responsibility and will not be liable for any loss arising from the reliance on or use of the listed information.
For all queries e-mail ft.reader.enquiries@morningstar.com

Data provided by Morningstar | www.morningstar.co.uk

POWERED BY MORNINGSTAR

UK RIGHTS OFFERS

Issue price	Amount paid up	Latest renun. date	High	Low	Stock	closing Price p	+or-

There are currently no rights offers by any companies listed on the LSE.

UK COMPANY RESULTS

Company		Turnover		Pre-tax		EPS(p)		Div(p)		Pay day	Total	
Chill Brands Group	Int	**0.020**	1.074	**2.188L**	2.469L	**0.900L**	1.240L	**0.00000**	0.00000	-	**0.000**	0.000
Coca-Cola Europacific Partners	Int	**4076.000**	4251.000	**429.000**	481.000	**1.040**	0.000	**0.00000**	0.00000	-	**0.000**	0.000
Mirada	Int	**5.257**	5.992	**1.027L**	1.216L	**0.129L**	0.142L	**0.00000**	0.00000	-	**0.000**	0.000
Trafalgar Property Group	Int	**0.018**	0.390	**0.444L**	0.338L	**0.200L**	0.350L	**0.00000**	0.00000	-	**0.000**	0.000

Figures in £m. Earnings shown basic. Figures in light text are for corresponding period year earlier.
For more information on dividend payments visit www.ft.com/marketsdata

UK RECENT EQUITY ISSUES

Issue date	Issue price(p)	Sector	Stock code	Stock	Close price(p)	+/-	High	Low	Mkt Cap (£m)
12/15	29.84	AIM	S247	Smarttech247 Group PLC	30.00	0.00	31.46	30.00	3722.4
12/05	0.30		HELD	Hellenic Dynamics PLC	0.15	0.01	0.32	0.13	1910.8

§Placing price. *Intoduction. ‡When issued. Annual report/prospectus available at www.ft.com/ir
For a full explanation of all the other symbols please refer to London Share Service notes.

MARKET DATA

FT500: THE WORLD'S LARGEST COMPANIES

Stock	Price	Day Chg	52 Week High	52 Week Low	Yld	P/E	MCap m
Australia (A$)							
ANZ Bank	23.69	-0.38	28.33	20.78	-	-	48065.07
BHP Group	46.53	0.37	53.72	35.83	8.45	11.42	159125.22
CmwBkAu	103.10	-1.72	109.20	86.98	3.25	20.27	117596.34
CSL	285.57	-3.43	304.70	240.10	1.01	42.74	93027.32
NatAusBk	30.22	-0.16	33.75	25.43	2.84	16.82	64338.29
Telstra	4.01	-0.03	4.20	3.62	2.38	34.10	31300.37
Wesfarmers	46.12	0.06	60.34	40.03	3.69	24.78	35330.97
Westpac Bank	23.49	-0.01	24.67	18.80	3.62	17.86	55684.21
Woolworths	34.04	-0.02	39.63	31.67	3.03	40.58	27973.67
Belgium (€)							
AnBshInBv	56.79	-0.06	58.72	45.56	0.89	29.77	104757.18
KBC Grp	60.42	-0.28	81.70	45.53	5.42	10.32	26746.06
Brazil (R$)							
Ambev	14.58	0.06	16.88	12.81	3.92	21.70	43569.67
Bradesco♦	13.44	0.31	17.72	12.03	6.26	6.13	12419.93
Cielo	5.21	0.13	6.22	2.01	2.83	17.38	2685.57
ItauHldFin♦	21.87	0.49	26.04	18.86	3.59	8.53	20574.08
Petrobras	28.66	-	42.08	23.61	16.98	4.03	40469.91
Vale	89.05	-0.14	107.11	61.90	14.79	3.92	80742.25
Canada (C$)							
Bausch Hlth	8.28	-0.29	36.26	5.10	-	-2.60	2205
BCE	59.36	-0.66	74.09	55.66	5.64	20.77	39837.82
BkMontrl	121.97	-0.72	154.47	113.73	3.54	9.80	62872.35
BkNvaS	65.51	-0.87	95.00	63.19	5.41	8.57	57436.05
Brookfield	58.88	11.29	63.88	41.28	1.09	19.91	69948.82
CanadPcR	101.91	-0.68	111.43	86.12	0.71	25.51	69757.11
CanImp	53.80	-0.92	83.75	53.64	10.67	3.90	35870.78
CanNatRs	74.45	-1.42	88.18	53.19	2.56	12.06	60668.11
CanNatRy	162.69	-1.00	175.39	137.26	1.45	24.70	80776.08
Enbridge	52.89	-0.80	59.69	48.84	6.04	19.28	78811.58
GtWesLif	31.11	0.01	41.50	27.99	5.93	9.14	21333.39
ImpOil	65.04	-0.53	79.83	44.73	1.51	19.55	27959.89
Manulife	23.95	-0.35	28.09	20.81	4.67	7.08	33192.54
Nutrien	100.09	-0.55	147.93	85.62	2.22	15.02	38335.34
RylBkC	127.51	-0.77	149.60	116.75	3.34	11.84	130019.31
SHOP	44.64	-1.19	183.35	33.00	-	1.61	32864.67
Suncor En	42.49	-0.32	53.62	31.48	2.36	16.05	42195.99
ThmReut	153.72	-0.30	159.82	119.23	1.27	11.07	54017.82
TntoDom	87.43	-0.90	109.08	77.27	3.57	11.45	117209.24
TrnCan	54.48	-0.87	74.44	53.53	6.11	30.64	40809.23
China (HK$)							
AgricBkCh	2.68	0.07	3.15	2.22	7.83	3.56	10572.62
Bk China	2.84	0.06	3.20	2.51	7.71	3.56	30479.48
BkofComm	4.62	0.26	5.74	3.84	7.45	3.87	20759.58
BOE Tech	0.64	-0.15	0.86	0.57	-	10.45	16.34
Ch Coms Cons	3.79	0.01	5.17	3.09	5.28	3.18	2149.19
Ch Evrbrght	2.37	0.07	3.11	2.04	9.95	3.25	3856.49
Ch Rail Cons	4.69	0.02	5.95	3.75	5.50	2.53	1249.76
Ch Rail Gp	4.15	0.01	5.88	3.48	4.88	3.38	2240.9
ChConstBk	4.86	0.19	6.23	4.12	7.52	3.58	149957.9
China Vanke	15.76	-0.26	21.70	9.96	8.89	7.19	3856.21
ChinaCitic	3.47	0.07	4.08	2.92	7.96	3.26	6627.62
ChinaLife	13.06	0.50	15.04	8.53	5.15	5.78	12472.38
ChinaMBank	43.30	1.65	70.80	25.40	3.25	8.09	25512.37
ChinaMob	52.05	0.15	58.65	46.65	6.09	8.13	136676.06
ChinaPcIns	17.56	0.18	25.90	12.10	7.36	5.79	6254.61
ChMinsheng	2.70	0.03	3.29	2.19	8.96	3.54	2883.15
ChMrchSecs	13.18	-0.04	17.74	12.06	3.33	11.71	14030.48
Chna Utd Coms	4.60	-0.21	5.25	3.30	2.44	22.98	20428.07
ChShenEgy	22.90	0.40	27.65	18.06	8.81	7.03	9926.45
ChShpbldng	3.48	-0.03	4.31	3.36	-	-257.61	11022.69
ChStConEng	5.39	-0.02	6.40	4.67	4.00	4.16	31569.01
ChUncHK	4.87	-0.13	5.11	3.27	3.18	10.87	19124.44
CNNC Intl	6.05	0.05	8.71	5.78	2.07	15.75	16357.25
CSR	3.14	0.03	3.73	2.37	6.49	8.74	1761.5
Daqin	6.63	0.05	7.25	5.95	7.27	10.00	14137.42
GuosenSec	8.88	0.04	11.70	8.43	2.60	10.16	11242.66
HaitongSecs	4.92	0.13	7.34	3.77	5.76	5.41	2152.94
Hngzh HikVDT	34.00	-0.51	53.05	28.10	2.36	18.60	44745.9
Hunng Pwr	3.56	0.46	5.42	2.62	5.47	-4.05	2147.56
IM Baotou Stl	1.96	-	2.85	1.75	-	33.23	8905.1
In&CmBkCh	4.00	0.15	4.94	3.37	7.48	3.71	44556.59
IndstrlBk	17.61	0.18	23.22	15.01	4.43	4.81	52471.17
Kweichow	1733	-	2154.25	1359	1.12	38.87	312243.25
Midea	0.40	0.02	0.60	0.32	-	-4.40	15.46
New Ch Life Ins	18.94	0.74	24.70	12.04	7.96	3.64	2513.69
PetroChina	3.61	0.09	4.49	3.01	6.51	7.37	9775.33
PingAnIns	51.25	0.80	69.40	31.30	4.81	8.25	48986.21
PngAnBnk	13.14	0.03	17.56	10.39	1.33	7.81	36572.66
Pwr Cons Corp	6.90	-0.04	9.81	6.65	1.29	14.28	10877.75
SaicMtr	14.63	-0.13	20.84	13.77	4.08	7.29	24516.11
ShenwanHong	0.10	-	0.18	0.05	-	2.99	113.02
ShgPdgBk	7.30	0.08	8.80	6.64	6.33	4.65	30732.61
Sinopec Corp	3.81	0.09	4.28	3.06	3.60	4.65	12448.95
Sinopec Oil	1.98	0.01	2.37	1.70	-	655.50	3853.57
Denmark (kr)							
DanskeBk	136.45	-1.00	139.00	91.28	1.39	9.82	16798.28
MollerMrsk	15890	-265.00	24070	13185	2.04	2.72	18996.86
NovoB	930.40	-2.40	940.00	604.40	0.96	47.15	231499.21
Finland (€)							
Nokia	4.34	-0.04	5.71	4.12	-	15.71	26226.67
SampoA	49.29	-0.21	49.97	35.85	3.30	11.02	27899.75
France (€)							
Airbus Grpe	111.62	-1.20	120.36	86.52	-	21.50	93421.23
AirLiquide	133.36	-0.56	153.40	114.48	1.96	25.86	74121.15
AXA	26.35	-0.16	29.09	20.34	5.16	9.32	65767.31
BNP Parib	53.56	-0.44	68.07	40.67	4.76	8.10	70199.95
ChristianDior	684.50	-4.50	734.50	513.00	0.97	26.25	131199.78
Cred Agr	9.82	-0.01	14.27	8.09	7.75	5.64	31738.9
Danone	49.84	-0.14	58.24	46.48	3.70	17.81	35763.61
EDF	12.00	-	12.04	6.64	3.87	9.70	49523.75
Engie SA	13.41	-0.20	14.68	9.79	3.76	9.93	34687.47
EssilorLuxottica	169.75	-1.90	188.64	132.70	0.61	54.39	80688.23
Hermes Intl	1462.5	-10.00	1585.5	957.60	0.30	65.96	163945.07
LOreal	335.40	-1.35	423.85	300.45	1.13	42.93	190604.27
LVMH	686.60	-3.60	739.40	535.00	0.97	30.20	366908.93
Orange	9.33	-0.04	11.94	9.08	6.12	3254.18	26356.24
PernodRic	184.70	-0.80	212.70	166.60	1.61	29.30	50589.73
Renault	31.24	-0.13	38.07	20.47	-	-24.51	9809.79
Safran	117.98	-1.38	120.10	87.85	0.35	1239.85	53524.07
Sanofi	89.94	-0.47	106.08	76.45	3.39	19.11	121049.07
Sant Gbn	45.69	-0.58	64.82	35.20	2.83	11.48	25022.53
Schneider	131.82	-0.66	173.78	110.02	1.88	24.43	79937.85
SocGen	23.52	-0.11	37.68	18.34	2.24	4.18	21225.66
Total	59.37	-0.26	60.44	43.60	4.33	11.99	165115.82
UnibailR	49.40	0.31	73.09	39.68	-	-7.39	7277.98
Vinci	93.49	-0.46	103.74	80.74	2.74	21.78	59363.77
Vivendi	8.88	-0.01	12.16	7.59	6.43	-16.66	10448.21
Germany (€)							
Allianz	202.15	-0.90	232.50	156.22	4.52	13.42	86572.79
BASF	46.55	-0.13	69.15	37.90	6.75	8.10	44177.83
Bayer	48.67	0.18	67.99	46.60	3.91	50.14	50766.83
BMW	83.26	-0.39	97.60	67.58	2.17	4.66	53222.32
Continental	56.20	-0.42	95.09	44.44	-	9.10	11935.58
Deut Bank	10.63	-0.08	14.64	7.46	-	10.99	23328.7
Deut Tlkm	18.93	-0.01	19.86	14.47	3.02	22.86	100221.58
DeutsPost	35.14	-0.03	56.91	29.68	3.74	9.35	46233.66
E.ON	9.18	0.01	12.54	7.28	4.87	5.36	25741.47
Fresenius Med	29.63	-0.07	63.66	26.19	4.30	9.41	9218.71
Fresenius SE	25.91	-0.13	38.11	19.76	3.31	8.61	15365.85
HenkelKgaA	60.40	-0.40	74.75	56.55	2.88	16.88	16662.25
Linde	307.90	-2.70	334.70	244.00	1.15	50.27	161040.03
Mercedes-Benz	61.33	-0.55	77.90	50.19	2.09	6.45	69671.49
MuenchRkv	303.80	-1.50	310.20	205.15	3.07	15.25	45194.64
SAP	96.67	-0.57	125.26	81.35	1.82	22.78	126105.12
Siemens	128.42	-1.10	153.06	93.67	2.59	20.29	115908.68
Volkswgn	145.00	-2.45	268.20	145.00	3.15	5.15	45434.59
Hong Kong (HK$)							
AIA	86.90	0.20	92.50	57.25	1.36	22.46	131383.52
BOC Hold	26.90	0.50	32.75	23.55	4.10	13.94	36501.15
Ch OSLnd&Inv	20.55	-	27.35	14.58	5.19	5.15	28866.04
ChngKng	48.00	-0.25	57.00	42.90	3.28	11.09	22209.27
Citic Ltd	8.21	0.33	9.26	7.01	5.82	3.84	30651.83
Citic Secs	15.88	0.28	21.32	11.82	2.67	8.26	5339.85
CK Hutchison	47.25	1.05	60.45	38.80	4.28	6.05	23225.81
CNOOC	9.98	0.17	12.54	7.99	4.02	8.80	57095.7
HangSeng	130.30	2.30	169.50	110.00	4.16	21.17	31971.41
HK Exc&Clr	342.60	2.60	483.60	208.20	2.37	39.01	55746.26
MTR	41.20	0.30	43.70	33.45	2.65	30.13	32794.27
SandsCh	25.40	0.40	27.20	12.50	-	-28.33	26382.66
SHK Props	105.20	-0.70	108.70	83.10	4.18	12.14	39124.26
Tencent	326.20	6.00	488.00	198.60	0.44	12.96	400846.49
India (Rs)							
Bhartiartl	803.80	-11.00	860.55	628.75	-	173.48	57779
HDFC Bk	1629.8	-1.30	1722.1	1271.6	-	27.93	109681.06
Hind Unilevr	2583.6	-9.65	2741.6	1927	1.23	69.97	73254.33
HsngDevFin	2671.3	2.20	2933.8	2026	0.85	22.99	58807.02
ICICI Bk	898.95	-1.70	958.20	642.15	0.22	28.83	75677.14
Infosys	1510.15	-4.70	1923.3	1360	1.99	30.16	76686.68
ITC	334.40	1.25	361.45	207.00	3.18	28.09	50088.14
L&T	2121.1	-3.00	2211.6	1456.35	0.84	35.57	35969.56
OilNatGas	143.90	-0.90	189.80	119.85	6.26	4.12	21845.78
RelianceIn	2544.45	-0.25	2856.15	2222	0.27	29.43	207750.12
SBI NewA	601.05	-0.85	629.55	430.70	0.66	16.95	64731.55
SunPhrmInds	995.00	-5.15	1070.95	784.80	0.75	37.48	28809.11
Tata Cons	3257.1	-2.40	3920	2950.1	1.10	31.45	143818.68
Israel (ILS)							
TevaPha	32.40	0.40	37.23	23.83	-	27.31	10225.18
Italy (€)							
Enel	5.05	-0.03	7.07	3.96	6.91	24.68	54506.62
ENI	13.51	-0.04	14.85	10.43	4.75	5.98	51716.89
Generali	16.70	-0.06	21.55	13.67	8.38	9.86	28028.61
IntSPaolo	2.08	0.00	2.92	1.58	1.67	67.76	42925.59
Unicred	13.32	0.06	15.93	7.75	0.86	20.79	31653.07
Japan (¥)							
AstellasPh	2033	4.00	2205	1782	2.34	30.27	27806.19
Bridgestne	4839	7.00	5509	4042	3.55	10.88	25729.83
Canon	2929	-16.50	3516	2538.5	3.45	14.02	29104.81
CntJpRwy	16220	10.00	17920	14660	0.83	-30.08	24893.43
Denso	6610	-49.00	9575	6549	2.19	17.91	38802.88
EastJpRwy	7554	-35.00	8280	6373	1.37	-7.50	21269.52
Fanuc	19995	-30.00	24930	18740	2.34	23.52	30077.69
FastRetail	81420	-910.00	88230	54310	0.67	37.80	64343.58
Fuji Hvy Ind	2034.5	5.50	2684	1664.5	2.85	23.12	11658.69
Hitachi	6804	11.00	7463	4750	1.75	9.86	47552.37
HondaMtr	3041	-2.00	3755	3018	4.39	6.36	41039.7
JapanTob	2843	-4.50	2871.5	2000	4.98	14.31	42361.7
KDDI	4020	-8.00	4636	3321	3.09	13.32	68965.57
Keyence	51270	-70.00	73420	44880	0.40	42.38	92898.18
MitsbCp	4349	22.00	4845	3641	3.29	9.60	47763.52
MitsubEst	982.78	-1.95	1013.24	876.51	-	-	-
MitsubishiEle	1328	0.50	1504.5	1225.5	3.12	11.74	21244.05
MitsuiFud	852.24	-10.57	1007.12	684.38	-	-	-
MitUFJFin	897.50	-0.30	911.80	622.80	3.00	9.00	86009.3
Mizuho Fin	1878	11.00	1894	1436.5	4.31	8.88	35527.74
Murata Mfg	6629	-121.00	9265	6596	1.87	13.16	33375.43
Nippon TT	3799	13.00	4128	3097	2.86	11.83	102514.62
Nissan Mt	416.50	0.20	643.00	408.60	-	13.08	13096.88
Nomura	483.10	-4.50	562.20	460.30	4.93	-32.13	11638.17
Nppn Stl	2318	32.50	2336	1787	3.57	3.54	16411.58
Panasonic	1122	-1.00	1325	1006.5	2.31	10.97	20513.7
Seven & I	5740	23.00	6083	5017	1.85	21.12	37907.82
ShnEtsuCh	16535	-95.00	20200	14185	1.82	15.31	50623.85
Softbank	5711	-85.00	7180	4210	0.80	4.75	73308.17
Sony	10180	25.00	14705	9213	0.61	12.57	95643.97
SumitomoF	5352	32.00	5422	3672	3.87	10.07	54813.54
Takeda Ph	4130	8.00	4203	3125	4.51	14.33	48685.87
TokioMarine	2902	65.50	2970.5	2037	7.85	4.56	44105.64
Toyota	1819	1.50	2375.5	1791	2.90	7.93	221098.59
Mexico (Mex$)							
AmerMvl	17.94	-0.29	21.45	15.67	1.83	14.37	39094.59
FEMSA UBD	153.04	-2.12	169.96	120.63	1.34	123.92	17034.32
WalMrtMex	70.80	-0.23	82.93	64.81	0.72	34.94	63670.91
Netherlands (€)							
ASML Hld	501.80	-8.50	724.50	376.10	0.64	40.71	214806.45
Heineken	88.88	-0.38	100.95	77.50	1.05	16.19	54361.68
ING	11.50	-0.08	14.00	7.90	4.97	9.82	45497.99
Unilever	47.65	-0.26	49.09	39.36	3.01	24.46	145199.62
Norway (Kr)							
DNB	193.50	0.35	220.50	168.05	8.96	12.41	30514.75
Equinor	358.00	-7.50	410.95	235.50	1.37	15.49	114967.74
Telenor	90.58	0.30	148.80	87.60	9.90	15.36	12819.68
Qatar (QR)							
QatarNtBk	18.20	0.01	27.00	17.50	2.76	14.75	46159.98
Saudi Arabia (SR)							
AlRajhiBnk	76.00	0.70	117.40	71.80	2.81	14.48	80861.8
Natnlcombnk	49.90	0.60	82.00	45.75	2.59	18.82	59436.67
SaudiBasic	89.50	2.50	141.40	79.20	3.23	13.08	71419.08
SaudiTelec	36.50	0.50	48.88	35.05	9.75	7.25	48543.7
Singapore (S$)							
DBS	34.20	-0.10	37.49	29.45	3.20	14.89	65243.81
JardnMt US$	50.93	-0.27	62.10	42.60	3.00	9.54	14760.74
OCBC	12.35	0.02	13.54	11.20	3.02	13.08	41138.44
SingTel	2.58	-	2.88	2.32	2.58	46.25	31569.37
UOB	30.96	0.03	33.33	25.91	2.84	14.63	38431.41
South Africa (R)							
Firstrand	62.50	-0.94	79.34	59.00	4.01	11.70	20471.1
MTN Grp	128.34	-0.65	211.49	115.46	-	18.09	14120.27
Naspers N	2835.69	75.89	2941.17	1392.5	0.20	15.77	72110.03
South Korea (KRW)							
HyundMobis	207000	-3000.00	263000	189500	1.83	8.52	15402.9
KoreaElePwr	22450	950.00	25100	16500	5.17	-13.84	11374.08
SK Hynix	76000	-1000.00	134000	75400	1.92	5.74	43665.2
SmsungEl	56600	-1500.00	80200	51800	2.42	10.34	266663.8
Spain (€)							
BBVA	5.66	0.01	6.12	3.97	6.25	8.09	36209.52
BcoSantdr	2.80	-0.02	3.48	2.32	2.60	5.89	49897.17
CaixaBnk	3.65	0.01	3.71	2.37	0.70	25.24	31266.85
Iberdrola	10.93	0.03	11.49	8.47	3.68	19.69	73805
Inditex	24.96	-0.15	28.58	18.55	0.84	27.66	82603.28
Repsol	14.95	-0.10	16.23	10.33	3.82	9.58	21865.75
Telefonica	3.39	0.01	5.06	3.22	9.72	2.60	20776.76
Sweden (SKr)							
AtlasCpcoB	110.98	-1.34	133.60	22.08	6.75	7.28	16567.06
Ericsson	61.36	-0.55	117.32	58.81	3.76	8.89	18029.96
H & M	113.06	-0.40	191.86	98.25	5.71	15.31	15794.07
Investor	189.78	-1.16	228.75	158.22	1.89	8.02	33068.63
Nordea Bk	111.78	-0.80	113.78	85.25	13.41	12.82	39431.38
SEB	120.65	-0.80	126.35	91.64	8.58	9.91	24861.08
SvnskaHn	105.15	-0.60	107.45	80.88	4.88	10.14	19557.42
Swedbank	177.70	-2.30	185.70	124.50	8.40	9.33	19238.38
Telia Co	26.65	-0.12	41.70	26.04	7.70	9.24	10423.49
Volvo	189.36	-1.56	218.65	148.24	3.52	12.12	28767.23
Switzerland (SFr)							
ABB	28.23	-0.28	33.86	23.84	2.67	14.22	59742.3
CredSuisse	2.77	-0.08	8.77	2.65	3.27	-4.56	7900.29
Nestle	108.10	-	128.90	103.42	2.30	19.70	320201.42
Novartis	84.48	-0.30	88.42	73.32	3.23	9.63	218727.24
Richemont	121.40	0.70	139.80	90.28	1.46	30.39	68258.08
Roche	292.55	-1.55	404.20	291.75	2.72	20.58	221385.95
Swiss Re	87.32	-0.38	102.20	68.18	6.13	22.15	29861.98
Swisscom	505.20	-3.60	587.40	443.40	3.94	15.78	28188.65
UBS	17.28	-0.10	19.90	13.10	1.82	9.34	65602.88
Zurich Fin	447.10	-1.70	461.70	376.20	4.06	15.64	72458.79
Taiwan (NT$)							
Chunghwa Telecom	114.00	1.00	132.50	105.50	3.70	25.18	28784.08
Formosa PetChem	80.50	-0.50	103.50	75.20	0.72	15.73	24959.35
HonHaiPrc	100.50	-	116.00	99.50	3.93	10.28	45347.37
MediaTek	638.00	-18.00	1200	533.00	5.72	9.21	33213.64
TaiwanSem	451.00	-6.00	650.00	370.00	2.34	18.21	380640.35
Thailand (THB)							
PTT Explor	32.75	0.25	41.25	30.75	5.70	9.35	26917.2
United Arab Emirates (Dhs)							
Emirtestele	24.30	0.70	38.98	11.60	2.75	27.17	57535.64
United Kingdom (p)							
Anglo American	3286	36.50	4292.5	2487.5	5.42	6.51	52895.28
AscBrFd	1588.5	1.50	2063	1223	0.39	26.26	15062.27
AstraZen	11250	12.00	11540	8214	1.84	1904.84	209788.83
Aviva	447.60	3.60	606.58	341.92	4.77	58.89	15100
Barclays	158.88	1.14	209.45	132.06	1.89	3.86	30340.02
BP	480.40	1.50	503.30	332.25	3.28	17.43	104969.33
BrAmTob♦	3332.5	16.00	3645	2728.79	6.47	11.27	89669.79
BT	115.20	1.20	201.40	110.55	-	11.18	13767.47
Compass	1928.5	-3.50	1970.5	1494	0.73	46.92	40706.45
Diageo	3668.5	21.00	4097	3282.5	1.98	28.22	100233.47
GlaxoSmh	1440.2	-12.60	2753.96	1280.92	5.55	16.63	70961.39
Glencore	559.70	1.70	571.90	372.05	1.58	20.49	86391
HSBC	518.00	7.70	567.20	434.70	3.12	11.32	124480.59
Imperial Brands	2096	14.00	2185	1434.23	6.59	7.01	23665.38
Jardine Mathes.	62.50	-	60.50	46.89	2.44	11.70	18114.01
LlydsBkg	46.24	0.21	56.00	38.10	5.56	6.42	37439.09
LSE Group	7128	-2.00	8612	6230	1.08	72.88	43614.74
Natl Grid	1001.5	11.90	1271.45	844.29	4.91	23.34	44116.22
Natwest Group	267.50	3.00	284.42	196.92	3.93	10.53	31110.66
Prudential	1123.5	7.00	1311	782.40	1.05	18.25	37173.02
ReckittB	5756	46.00	6824	5400	3.03	-24.91	49579.16
RELX	2320	21.00	2474	2056	2.06	30.61	53467.09
RioTinto	5818	10.00	6343	4436.95	8.63	6.09	87497.12
RollsRoyce	92.64	0.96	125.86	64.44	-	63.02	9328.87
Shell PLC	2350	-16.50	2527	1616.4	2.58	12.38	198119.22
StandCh	629.20	4.20	641.00	431.30	1.41	14.11	21919.48
Tesco	223.50	-3.20	304.10	194.35	4.09	11.38	19791.86
Unilever	4205.5	-8.50	4249.5	3267.5	3.44	21.59	128150.5
Vodafone	84.47	0.57	141.60	83.24	9.16	-188.97	27783.84
WPP	816.20	-0.40	1231.5	713.00	3.25	15.55	10519.39
United States of America ($)							
21stC Fox A	30.23	-0.39	44.95	28.02	1.38	13.77	9143.81
3M	119.19	-1.03	179.18	107.07	4.41	13.26	65881.43
AbbottLb	108.63	0.06	141.75	93.25	1.47	31.03	189404.42
Abbvie	162.82	-0.18	175.91	128.60	2.84	28.41	287935.15
Accenture	265.78	0.47	417.37	242.95	1.24	30.37	174986.5
Activision Bli.	76.22	0.43	82.00	65.60	0.55	24.94	59651.7
Adobe	330.75	-4.34	582.88	274.73	-	36.62	153765.68
Advanced Micro	62.18	-1.10	156.73	54.57	-	27.23	100248.24
AEP	95.93	-0.36	105.60	80.30	2.78	21.77	49294.94
Aflac	71.81	-0.43	72.70	52.07	1.63	12.65	44650.64
AirProd	310.41	-1.79	328.56	216.24	1.72	36.70	68869.42
Allstate	135.75	-0.27	144.46	111.85	2.12	9.00	36002.2
Alphabet	86.19	-1.20	151.55	83.34	-	0.86	514812.87
Altria	46.17	-0.31	57.05	40.35	6.77	38.78	82744.61
Amazon	81.90	-1.14	172.18	81.87	-	1.42	835487.93
AmerAir	12.33	-0.21	21.42	11.65	-	-3.70	8010.03
AmerExpr	144.88	-1.51	199.55	130.65	1.14	15.83	108259.07
AmerIntGrp	63.10	-0.23	65.73	47.05	1.80	6.56	46882.04
AmerTower	213.15	2.25	291.99	178.17	2.17	42.38	99243.83
Amgen	261.87	-1.52	296.67	214.39	2.39	28.67	139728.39
Amphenol Corp	75.45	-0.90	88.45	61.67	0.92	33.83	44899.88
Analog Devices	160.92	-1.29	180.01	133.48	1.54	60.81	81953.36
Anthem	482.58	12.71	-	-	-	-	-
Aon Cp	300.46	-0.51	341.98	246.21	0.59	60.93	62151.03
Apple	126.59	-3.44	182.94	126.46	0.61	23.63	2013808.66
Applied Materi.	94.26	-1.08	167.06	71.12	0.89	14.64	79568.61
Aptiv	90.80	-0.70	166.02	77.96	-	52.68	24602.22
ArcherDan	93.45	-2.47	98.88	65.64	1.41	21.96	51332.54
AT&T	18.27	-0.20	21.53	14.46	10.12	7.45	130174.66
Autodesk	183.59	-2.71	285.37	163.20	-	91.37	39611.68
AutomData	239.29	-1.74	274.92	192.26	1.42	41.69	99264.14
AutoZone	2464	9.68	2610.05	1703.32	-	25.06	46238.61
Avago Tech	548.01	-5.53	677.76	415.07	2.44	34.83	229005.78
BakerHu	28.38	-1.00	39.78	20.42	2.32	73.91	28416.64
Bank of NY	44.71	-0.12	64.63	36.22	2.58	12.15	36134.16
BankAm	32.67	0.14	50.11	29.31	2.12	10.30	262052.75
Baxter	50.45	-0.39	89.70	49.00	1.91	22.44	25432.89
BectonDick	254.52	-0.79	277.29	215.90	1.17	49.56	72350.46
BerkshHat	461462.5	-492.49	544389.26	393012.25	-	8.73	275412.82
Biogen	273.91	-0.86	311.88	187.16	-	29.64	39443.42
BlackRock	702.40	-0.86	929.06	503.12	2.09	20.68	105497.37
Boeing	188.74	-0.66	223.23	113.02	-	-29.71	112075.92
Booking Holdings	1990.53	-7.74	2715.66	1616.85	-	79.53	77211.44
Bristol-Myers	72.28	-0.33	81.44	61.33	2.47	26.07	153674.62
Broadcom	548.01	-5.53	677.76	415.07	2.44	34.83	229005.78
Cadence Design	159.08	-0.97	194.97	132.32	-	71.62	43638.19
CapOne	90.15	-0.60	160.54	86.98	1.97	3.76	34410.13
CardinalHlth	79.19	0.04	81.57	49.10	2.20	46.18	20758.4
Carnival	7.70	0.03	23.86	6.11	-	-1.03	8567.84
Caterpillar	239.31	-3.83	245.05	160.60	1.59	22.77	124539.16
Centene Corp	82.19	0.61	98.53	73.20	-	40.57	46540.88
CharlesSch	82.17	-0.05	96.24	59.35	0.78	32.68	149208.04
Charter Comms	332.13	-0.66	669.87	297.66	-	15.28	51703.43
Chevron Corp	176.48	-3.15	189.68	117.29	2.67	24.40	341248.53
Chipotle Mexic.	1391.06	-6.94	1776.67	1196.28	-	68.37	38561.73
Chubb	220.82	-0.08	222.33	173.78	1.28	12.90	91651.4
Cigna	334.04	-0.06	340.11	213.16	1.06	23.90	102129.06
Cintas Corp	456.20	-2.83	470.23	343.86	0.71	45.01	46324.98
Cisco	47.08	-0.45	64.29	38.61	2.82	18.81	193444.38
Citigroup	44.36	-0.04	69.11	40.01	4.09	4.92	85909.11
CME Grp	168.30	0.62	256.94	166.58	1.90	25.98	60541.71
Coca-Cola	63.88	-0.34	67.20	54.02	2.34	31.95	276228.28
Cognizant	55.87	-0.61	93.47	51.33	1.53	15.53	28712.79
ColgtPlm	79.40	-0.55	85.18	67.84	2.00	35.04	66311.83
Comcast	34.76	-0.24	51.20	28.39	2.56	12.87	149953.4
ConocPhil	115.52	-2.95	138.49	72.20	1.50	21.42	143946.13
Constellation	232.84	0.45	261.53	207.59	1.17	-1179.95	37539.51
Corning	31.52	-0.39	43.47	28.98	2.71	27.71	26655.75
Corteva	58.96	-0.80	68.43	43.74	0.80	27.99	42126.45
Corteva	58.96	-0.80	68.43	43.74	0.80	27.99	42126.45
Costco	455.31	-3.19	612.27	406.51	0.62	40.90	202095.87
CrownCstl	136.95	0.02	208.69	121.71	3.54	57.73	59305.92
CSX	31.08	-0.17	38.63	25.80	1.12	19.32	65332.35
CVS	93.22	0.20	111.25	86.28	1.91	17.63	122481.43
Danaher	261.87	0.99	330.46	233.71	0.31	33.63	190631.59
Deere	430.82	-5.33	448.40	283.81	0.81	26.62	128486.58
Delta	32.28	-0.63	46.27	27.20	-	43.59	20694.35
Devon Energy	61.26	-1.98	79.40	42.87	2.86	16.45	40045.66
Digital Realty	100.47	0.12	176.53	85.76	4.10	19.04	28887.36
DiscFinServ	95.76	-0.99	129.12	87.64	1.74	6.04	26164.1
Disney	85.17	-1.20	157.50	84.69	-	55.73	155315.33
Dollar General	246.15	-1.02	262.21	183.25	0.61	26.98	55032.96
DominRes	61.71	-0.07	88.78	57.18	3.63	21.77	51421.41
DukeEner	103.44	-0.23	116.33	83.76	3.35	23.61	79655.29
DuPont	68.08	-0.70	84.08	49.52	1.57	23.72	33821.39
Eaton	156.22	-1.12	172.52	122.50	1.73	32.93	62128.69
eBay	39.91	-0.17	67.65	35.92	1.60	118.20	21657.52
Ecolab	145.77	0.32	236.89	131.04	1.19	41.96	41519.39
Edwards Lifesc.	73.66	0.07	131.73	67.13	-	34.83	45541.01
Eli Lilly	365.29	0.41	375.25	231.87	0.83	67.18	347090.49
Emerson	95.69	-0.97	100.00	72.41	1.88	23.51	56591.07
EOG Res	127.98	-4.10	150.88	89.08	1.12	18.03	75174.11
Equinix	659.03	4.45	847.10	494.89	1.55	134.13	60985.39
EquityResTP	59.25	-0.22	94.32	58.15	3.61	19.46	22391.7
Exelon	43.04	-0.11	50.71	29.10	3.16	27.84	42770.66
ExxonMb	108.26	-1.93	114.66	60.77	2.86	22.61	445846.45
Fedex	175.29	-1.77	260.21	141.92	1.45	10.61	44241.43
Fidelity NIS	66.39	-0.88	122.06	56.53	2.09	111.52	39394.46
Fiserv	100.35	-0.47	110.94	87.03	-	56.75	63725
FordMtr	10.96	-0.25	25.87	10.61	0.81	2.77	43268.33
Franklin	26.64	-0.27	34.29	20.24	3.77	7.93	13308.24
GenDyn	248.66	-0.08	256.86	200.79	1.67	24.23	68269.34
GenElectric	81.92	-0.92	101.91	59.93	0.35	-28.37	89511.37
GenMills	85.39	-0.55	88.34	61.67	2.14	25.39	50346.86
GenMotors	32.66	-0.66	67.21	30.33	-	5.49	46399.96
GileadSci	84.62	-0.39	89.74	57.17	2.98	19.32	106133.99
GoldmSchs	340.56	-1.41	391.33	277.84	1.70	6.45	115325.4
Halliburton	37.90	-1.37	43.99	22.68	0.61	23.97	34414.97
HCA Hold	238.29	-1.74	279.02	164.47	0.72	12.67	67368.56
Hew-Pack	26.60	-0.47	41.47	24.08	2.80	5.40	26125.08
Hilton Worldwi.	124.61	-1.13	167.99	108.41	-	96.06	33701.52
HiltonWwde	124.61	-1.13	167.99	108.41	-	96.06	33701.52
HomeDep	317.36	-2.19	413.44	264.51	1.87	22.78	324889.82
Honywell	213.42	-1.47	220.96	166.63	1.57	30.37	143484.39
HumanaInc	518.44	4.06	571.30	363.73	0.48	25.74	65634.67
IBM	140.94	-1.48	153.21	115.55	4.13	30.45	127427.57
IDEXX Laborato.	401.55	-3.25	664.70	317.06	-	52.55	33255.15
IllinoisTool	222.06	-1.68	248.11	173.52	1.89	29.37	68213.81
Illumina	188.84	0.07	389.89	173.45	-	42.17	29704.53
Intcntl Exch♦	102.96	0.85	138.46	88.60	1.14	16.14	57508.48
Intel	25.59	-0.35	53.13	24.59	4.83	5.93	105609.93
Intuit	377.66	-5.45	658.84	339.36	0.60	53.23	106094.27
John&John	177.12	-0.31	186.69	155.72	2.10	25.52	463068.97
JohnsonCn	63.66	-0.65	81.69	45.52	1.61	32.71	43712.14
JPMrgnCh	131.92	0.18	160.24	101.28	2.56	9.67	386948.39
Kimb-Clark	137.50	-0.88	144.53	108.74	3.04	29.04	46405.16
KinderM	18.01	-0.25	20.20	15.74	5.48	43.79	40481.83
KLA Corp	367.36	-3.74	442.44	250.20	0.94	21.28	52061.64
Kraft Heinz	40.71	-0.25	44.87	32.73	3.49	55.88	49866.91
Kroger	45.36	-0.59	62.78	41.82	1.54	23.30	32469.68
LasVegasSd	46.59	-1.87	49.73	28.88	-	-34.73	35602.51
LibertyGbl	18.65	-0.17	29.08	15.22	-	0.90	3205.98
Lilly (E)	365.29	0.41	375.25	231.87	0.83	67.18	347090.49
Linde	326.93	-2.02	347.60	262.47	1.15	50.27	161032.88
Lockheed	485.71	0.21	498.95	349.51	2.03	23.47	127291.94
Lowes	200.47	-1.24	259.25	170.12	1.34	18.56	124431.84
Lyondell	82.35	-1.40	117.22	71.46	4.79	5.53	26815.17
Marathon Ptl	114.30	-2.52	127.62	63.39	1.80	63.68	53567.93
Marsh&M	165.70	-0.75	183.14	142.80	1.44	28.68	82186.3
MasterCard	344.50	-1.66	399.92	276.87	0.58	44.26	328585.15
McDonald's	265.89	-0.95	281.67	217.68	1.75	29.81	194744.19
McKesson	380.33	0.14	401.78	237.72	0.42	48.48	53928.31
Medtronic	76.78	-0.86	114.31	75.77	2.89	23.58	102131.22
Merck	111.48	-0.64	112.89	72.88	2.10	25.82	282645.94
Meta	116.13	-0.75	352.71	88.09	-	9.49	261910.37
Metlife	71.85	-0.47	77.36	57.41	2.35	11.06	56373.96
Microsoft	235.75	-1.21	344.30	213.43	0.87	28.26	1757870.46
Mnstr Bvrg	101.89	-0.13	104.65	71.78	-	44.62	53157.85
MondelezInt	67.20	-0.30	69.47	54.72	1.76	24.88	91762.74
Monsanto	10.07	0.02	11.13	9.56	-	51.84	251.75
MorganStly	84.36	-0.70	109.73	72.05	2.21	11.82	142577.63
Netflix	274.08	-10.09	620.61	162.71	-	27.44	121971.22
NextEraE	83.70	-0.30	92.91	67.22	1.73	123.75	166325.6
Nike	115.70	-1.86	170.12	82.22	0.90	34.04	146204.61
NorfolkS	247.04	-2.48	296.87	203.65	1.50	22.96	57193.66
Northrop	542.93	1.74	556.27	364.62	1.01	14.03	83563.51
NXP	151.78	-2.00	234.42	132.08	1.32	25.16	39331.49
Occid Pet	61.96	-2.37	77.13	28.92	0.06	33.85	56316.32
Oracle	80.58	-0.40	89.80	60.78	1.42	34.29	217264.07
Pepsico	182.62	-0.45	186.84	153.37	2.07	37.44	251597.26
Perrigo	34.16	0.08	43.90	30.78	2.50	-39.23	4599.29
Pfizer	50.92	-0.22	59.45	41.45	2.72	14.58	285801.91
Phillips66	102.35	-2.23	113.53	72.38	3.14	38.78	48373.91
PhilMorris	101.74	-0.94	112.48	82.85	4.28	19.64	157717.58
PNCFin	156.22	0.26	214.50	143.52	2.73	13.84	63006.5
PPG Inds	126.18	-0.24	172.78	107.06	1.67	31.16	29655.76
ProctGmbl	152.86	-1.09	165.35	122.18	2.08	29.24	364653.41
Prudntl	98.60	-0.75	124.22	85.46	4.15	5.69	36679.2
PublStor	281.98	-1.07	421.76	270.73	2.52	32.15	49525.63
Qualcomm	107.29	-2.17	192.10	101.93	2.23	13.83	120272.09
Raytheon	99.65	-0.01	106.02	80.27	1.79	43.47	146491.56
Regen Pharm	709.64	-1.72	779.00	538.01	-	11.10	75990.4
S&P Global	332.25	0.93	481.44	279.32	0.82	29.89	108247.05
Salesforce	129.10	-1.56	260.78	126.34	-	97.25	129100
Schlmbrg	52.15	-1.36	56.04	29.51	0.85	44.46	73941.29
Sempra Energy	157.98	-0.86	176.47	129.69	2.47	44.94	49658.38
Shrwin-Will	240.30	0.88	354.15	195.24	0.81	38.75	62272.16
SimonProp	116.90	-1.20	161.87	86.02	5.43	19.23	38219.96
SouthCpr	61.23	-0.95	79.32	42.42	4.64	15.70	47336.82
Starbucks	98.89	-0.31	117.34	68.39	1.65	30.08	113505.94
StateSt	76.89	-0.26	103.76	58.62	2.52	12.04	28214.03
Stryker	244.11	0.08	279.28	188.84	0.94	52.73	92378.53
Sychrony Fin	32.13	-0.43	47.11	27.22	2.50	4.76	14475.9
T-MobileUS	139.66	-1.33	154.38	101.51	-	65.22	173758.57
Target	145.42	-0.13	254.87	137.16	1.95	11.50	66931.39
TE Connect	112.51	-1.35	164.12	104.76	1.56	17.20	35691.61
Tesla Mtrs	109.82	0.72	384.29	108.24	-	25.22	346784.37
TexasInstr	161.48	-2.30	193.28	144.46	2.32	22.00	146554.68
TheTrvelers	189.63	-0.85	191.22	149.65	1.70	13.16	44439.09
ThrmoFshr	546.64	1.20	668.94	475.77	0.17	31.61	214389.78
TJX Cos	78.45	-0.58	81.17	53.69	1.19	32.39	90649.3
Truist Financial Corp	42.70	-0.14	66.10	40.01	3.87	10.75	56652.92
Twitter	53.70	0.35	60.16	31.30	-	-224.30	41093.72
UnionPac	208.63	-1.69	278.94	183.70	1.97	21.70	128265.89
UPS	174.89	-2.04	233.72	154.87	2.07	13.41	127635.83
USBancorp	43.33	-0.32	60.50	38.39	3.61	9.56	64384.45
UtdHlthcre	533.49	1.50	558.10	445.74	0.93	33.21	498465.89
ValeroEngy	124.71	-1.70	146.81	73.47	2.79	61.83	48078.61
Verizon	38.74	-0.51	55.51	34.55	5.81	8.20	162700.93
VertexPharm	285.84	-1.48	324.75	220.24	-	35.71	73372.68
VF Cp	25.89	-1.28	73.66	25.05	6.76	9.55	10058.03
Visa Inc	206.11	-0.18	235.85	174.60	0.58	38.41	335516.86
Walgreen	37.82	-0.49	53.46	30.39	4.51	6.16	32612.62
WalMartSto♦	141.72	-2.09	160.77	117.27	1.39	32.44	382190.5
Walt Disney	85.17	-1.20	157.50	84.69	-	55.73	155315.33
Waste Manage.	158.80	-0.70	175.98	138.58	1.29	41.66	65182.74
WellsFargo	41.07	0.03	60.30	36.54	1.67	9.34	156496.86
Williams Cos	32.81	-0.61	37.97	25.89	4.44	29.77	39967.64
Workday	163.08	-0.32	280.73	128.72	-	1515.09	32942.16
Yum!Brnds	129.91	0.01	139.85	103.97	1.37	28.06	36594.07
Zoetis	144.53	-0.78	249.27	124.15	0.61	38.09	67359.06
Zoom	65.39	-0.07	192.91	63.55	-	16.20	16411.27
Venezuela (VEF)							
Bco de Vnzla	2.18	-0.02	2.30	0.32	151.25	-	473.76
Bco Provncl	4.30	0.10	4.39	1.70	-	0.00	96.09

Closing prices and highs & lows are in traded currency (with variations for that country indicated by stock), market capitalisation is in USD. Highs & lows are based on intraday trading over a rolling 52 week period.
♦ ex-dividend
■ ex-capital redistribution
price at time of suspension

FT 500: TOP 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Petrobras	28.78	28.66	0.12	0.42	2.61	10.0	2.45
MitUFJFin	897.50	897.80	-0.30	-0.03	79.10	9.7	18.23
SumitomoF	5352.00	5320.00	32.00	0.60	378.00	7.6	12.06
Perrigo	34.16	34.08	0.08	0.23	2.36	7.4	6.76
ChinaLife	13.06	12.56	0.50	3.98	0.84	6.9	16.40
Cielo	5.18	5.08	0.10	1.97	0.31	6.4	9.03
Mizuho Fin	1878.00	1867.00	11.00	0.59	111.00	6.3	9.86
ChUncHK	4.87	5.00	-0.13	-2.60	0.28	6.1	17.19
BkofComm	4.62	4.36	0.26	5.96	0.25	5.7	4.05
Hunng Pwr	3.56	3.10	0.46	14.84	0.19	5.6	-3.00
Nppn Stl	2318.00	2285.50	32.50	1.42	120.00	5.5	2.63
Suncor En	42.76	42.81	-0.05	-0.12	2.16	5.3	-7.38
KoreaElePwr	22450.00	21500.00	950.00	4.42	1050.00	4.9	11.41
PTT Explor	32.75	32.50	0.25	0.77	1.50	4.8	-2.96
Vale	89.83	89.19	0.64	0.72	4.08	4.8	10.49
ChngKng	48.00	48.25	-0.25	-0.52	2.15	4.7	1.37
New Ch Life Ins	18.94	18.20	0.74	4.07	0.78	4.3	10.35
In&CmBkCh	4.00	3.85	0.15	3.90	0.16	4.2	3.64
CK Hutchison	47.25	46.20	1.05	2.27	1.80	4.0	8.15
CanNatRs	75.39	75.87	-0.48	-0.63	2.80	3.9	-5.38

Based on the FT Global 500 companies in local currency

FT 500: BOTTOM 20

	Close price	Prev price	Day change	Day change %	Week change	Week change %	Month change %
Tesla Mtrs	109.82	109.10	0.72	0.66	-27.75	-20.2	-39.84
Bausch Hlth	8.39	8.57	-0.18	-2.10	-1.13	-11.9	-7.89
Applied Materi.	94.26	95.34	-1.08	-1.13	-11.64	-11.0	-8.84
Carnival	7.70	7.67	0.03	0.39	-0.78	-9.2	-17.33
GenMotors	32.66	33.32	-0.66	-1.98	-3.24	-9.0	-16.96
Advanced Micro	62.18	63.27	-1.10	-1.73	-5.51	-8.1	-14.96
ASML Hld	501.10	510.30	-9.20	-1.80	-44.10	-8.1	-12.68
Netflix	274.08	284.17	-10.09	-3.55	-23.88	-8.0	-2.56
KLA Corp	367.36	371.10	-3.74	-1.01	-29.42	-7.4	-2.02
SHOP	44.91	45.83	-0.92	-2.01	-3.56	-7.3	-12.47
NXP	151.78	153.78	-2.00	-1.30	-11.65	-7.1	-7.48
FordMtr	10.96	11.20	-0.25	-2.19	-0.83	-7.0	-20.21
Apple	126.59	130.03	-3.44	-2.65	-8.86	-6.5	-12.18
Zoom	65.39	65.46	-0.07	-0.11	-4.54	-6.5	-8.70
Qualcomm	107.29	109.46	-2.17	-1.98	-7.30	-6.4	-10.23
China Vanke	15.76	16.02	-0.26	-1.62	-1.00	-6.0	6.06
Panasonic	1122.00	1123.00	-1.00	-0.09	-67.50	-5.7	-12.56
Amazon	81.90	83.04	-1.14	-1.38	-4.87	-5.6	-12.80
Ch Rail Cons	4.69	4.67	0.02	0.43	-0.27	-5.4	2.63
AmerAir	12.33	12.53	-0.21	-1.64	-0.71	-5.4	-10.88

Based on the FT Global 500 companies in local currency

BONDS: HIGH YIELD & EMERGING MARKET

Dec 28	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
High Yield US$										
HCA Inc.	04/24	8.36	BB-	Ba2	BB	113.75	4.24	0.00	0.12	-
High Yield Euro										
Aldesa Financial Services S.A.	04/21	7.25	-	-	B	71.10	28.23	0.00	0.64	25.98
Emerging US$										
Peru	03/19	7.13	BBB+	A3	BBB+	104.40	2.60	-	-	0.34
Colombia	01/26	4.50	-	Baa2	BBB-	109.50	2.33	0.16	0.52	1.28
Brazil	04/26	6.00	-	Ba2	BB-	115.15	2.78	-0.01	0.65	1.73
Poland	04/26	3.25	-	A2	A-	111.22	0.98	0.03	0.16	-0.07
Mexico	05/26	11.50	-	Baa1	BBB-	149.00	1.61	0.00	-0.12	0.56
Turkey	03/27	6.00	-	Ba2	BB+	101.26	5.82	0.00	0.17	3.07
Turkey	03/27	6.00	-	B2	BB-	102.88	5.43	0.14	0.83	4.38
Peru	08/27	4.13	BBB+	A3	BBB+	103.50	3.66	0.01	-0.02	0.80
Russia	06/28	12.75	-	Baa3	BBB	168.12	2.48	0.07	0.05	-
Brazil	02/47	5.63	-	Ba2	BB-	101.48	5.52	0.08	0.80	-
Emerging Euro										
Brazil	04/21	2.88	BB-	Ba2	BB-	103.09	0.05	0.01	-0.09	-1.19
Mexico	04/23	2.75	BBB+	A3	BBB+	107.76	0.76	0.00	-0.07	-1.56
Mexico	04/23	2.75	-	Baa1	BBB-	106.48	-0.26	-	-	-0.36
Bulgaria	03/28	3.00	BBB-	Baa2	BBB	117.04	1.00	0.02	-0.15	-1.42

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

BONDS: GLOBAL INVESTMENT GRADE

Dec 28	Red date	Coupon	Ratings S*	Ratings M*	Ratings F*	Bid price	Bid yield	Day's chge yield	Mth's chge yield	Spread vs US
US$										
FleetBoston Financial Corp.	01/28	6.88	BBB+	Baa1	A-	129.00	2.54	-0.01	-0.05	-
The Goldman Sachs Group, Inc.	02/28	5.00	BBB+	A3	A	117.21	2.47	0.00	0.32	-
NationsBank Corp.	03/28	6.80	BBB+	Baa1	A-	127.69	2.72	-0.01	0.06	-
GTE LLC	04/28	6.94	BBB+	Baa2	A-	128.27	2.80	0.00	-0.11	-
United Utilities PLC	08/28	6.88	BBB	Baa1	A-	130.43	2.62	-0.07	-0.22	-
Barclays Bank plc	01/29	4.50	A	A1	A+	96.46	5.02	0.00	0.02	-
Euro										
Electricite de France (EDF)	04/30	4.63	A-	A3	A-	137.45	0.82	-0.01	0.10	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	124.42	0.68	0.00	-0.11	-
The Goldman Sachs Group, Inc.	02/31	3.00	BBB+	A3	A	121.70	0.93	0.00	0.02	-
Finland	04/31	0.75	AA+	Aa1	AA+	111.08	-0.27	0.00	-0.05	-0.87
Yen										
Mexico	06/26	1.09	-	Baa1	BBB-	98.73	1.34	-0.02	-0.14	0.27
£ Sterling										
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	137.45	2.19	-0.03	0.02	-
innogy Fin B.V.	06/30	6.25	BBB	Baa2	A-	128.68	3.20	0.00	-0.01	0.40

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company. US $ denominated bonds NY close; all other London close. *S - Standard & Poor's, M - Moody's, F - Fitch.

INTEREST RATES: OFFICIAL

Dec 28	Rate	Current	Since	Last
US	Fed Funds	4.25-4.50	15-12-2022	3.00-3.25
US	Prime	6.25	22-09-2022	5.50
US	Discount	3.25	22-09-2022	2.50
Euro	Repo	0.53	01-11-2022	0.374
UK	Repo	3.50	15-12-2022	3.00
Japan	O'night Call	0.00-0.10	01-02-2016	0.00
Switzerland	Libor Target	-1.25-0.25	15-01-2015	-0.75--0.25

INTEREST RATES: MARKET

Dec 28 (Libor: Dec 23)	Over night	Change Day	Change Week	Change Month	One month	Three month	Six month	One year
US$ Libor	4.31671	0.002	-0.004	-0.002	4.38686	4.72643	5.15314	5.44386
Euro Libor	-0.64957	-0.064	0.000	0.001	-0.61943	-0.58057	-0.55600	-0.48571
£ Libor	0.18063	-0.005	0.000	0.007	3.46900	3.80950	4.34130	0.81363
Swiss Fr Libor				-0.002	-0.77540	-0.75300	-0.70280	-0.55320
Yen Libor				0.000	-0.06005	-0.03453	0.05282	0.04867
Euro Euribor				-0.015	1.89500	2.12800	2.70300	3.26500
Sterling CDs				0.000	0.50000	0.63000	0.78500	
US$ CDs				-0.090	4.31000	4.67000	5.05000	
Euro CDs				0.030	1.78000	2.16000	2.62000	

Dec 28	Short term		7 Days notice		One month		Three month		Six month		One year	
Euro	1.64	1.94	1.25	1.55	1.63	1.93	2.01	2.31	2.47	2.77	2.92	3.22
Sterling					0.45	0.55	0.58	0.68	0.71	0.86	0.90	1.05
US Dollar	4.27	4.47	4.28	4.48	4.21	4.41	4.57	4.77	4.95	5.15	5.29	5.49
Japanese Yen	-0.15	0.05	-0.20	0.00	-0.20	0.00	-0.15	0.05	-0.10	0.20	-0.05	0.25

Libor rates come from ICE (see www.theice.com) and are fixed at 11am UK time. Other data sources: US $, Euro & CDs: Tullett Prebon; SDR, US Discount: IMF; EONIA: ECB; Swiss Libor: SNB; EURONIA, RONIA & SONIA: WMBA.

BOND INDICES

	Index	Day's change	Month's change	Year change	Return 1 month	Return 1 year
Markit IBoxx						
ABF Pan-Asia unhedged	203.22	0.15	2.99	-7.54	3.19	-7.65
Corporates(£)	323.09	0.01	-1.67	-18.37	-2.09	-18.56
Corporates(€)	207.42	-0.40	-1.70	-14.12	-1.45	-14.33
Eurozone Sov(€)	208.20	-0.89	-4.26	-18.17	-4.01	-18.63
Gilts(£)	270.37	0.01	-4.10	-24.79	-4.85	-25.09
Overall(£)	279.08	0.01	-3.44	-22.90	-4.09	-23.18
Overall(€)	204.63	-0.72	-3.43	-17.05	-3.21	-17.42
FTSE						
Sterling Corporate (£)	-	-	-	-	-	-
Euro Corporate (€)	104.47	-0.05	-	-	0.54	-1.73
Euro Emerging Mkts (€)	725.13	-9.32	-	-	6.48	-8.81
Eurozone Govt Bond	110.04	-0.19	-	-	-0.34	-0.64

CREDIT INDICES

	Index	Day's change	Week's change	Month's change	Series high	Series low
Markit iTraxx						
Crossover 5Y	478.75	1.34	1.25	15.10	688.92	426.04
Europe 5Y	92.55	-0.50	-1.75	0.57	142.08	81.55
Japan 5Y	87.03	-0.82	-2.54	7.10	119.29	75.61
Senior Financials 5Y	101.15	-1.74	-2.56	-0.91	155.06	89.99
Markit CDX						
Emerging Markets 5Y	239.92	-1.11	-7.31	3.97	335.29	222.68
Nth Amer High Yld 5Y	476.91	-0.25	-25.79	-0.88	625.47	450.15
Nth Amer Inv Grade 5Y	80.60	-0.33	-5.83	-0.51	110.98	75.62

Websites: markit.com, ftse.com. All indices shown are unhedged. Currencies are shown in brackets after the index names.

VOLATILITY INDICES

	Dec 28	Day Chng	Prev	52 wk high	52 wk low
VIX	21.89	0.24	21.65	38.93	16.62
VXD	19.82	0.39	19.43	45.37	3.27
VXN	28.35	0.57	27.78	44.05	9.94
VDAX	20.67	-0.08	20.75	93.30	-

† CBOE. VIX: S&P 500 index Options Volatility, VXD: DJIA Index Options Volatility, VXN: NASDAQ Index Options Volatility. ‡ Deutsche Borse. VDAX: DAX Index Options Volatility.

BONDS: BENCHMARK GOVERNMENT

	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	-	-	-	-	-	-	-	-
	05/32	1.25	79.83	3.83	0.00	0.11	0.31	-
	02/50	1.00	95.89	1.67	0.00	0.05	0.24	1.67
Austria	02/29	0.50	86.15	3.00	0.12	0.19	0.65	3.15
	02/47	1.50	73.93	3.04	0.13	0.22	0.53	2.56
Belgium	06/27	0.80	91.74	2.79	0.07	0.20	0.58	3.13
	06/47	1.60	71.71	3.30	0.13	0.20	0.59	2.50
Canada	03/25	1.25	94.73	3.80	-	-	-	-
	06/30	1.25	87.62	3.13	-	-	-	-
	12/48	2.75	92.13	3.20	-	-	-	-
Denmark	11/29	0.50	86.23	2.72	0.11	0.20	0.57	2.82
	11/52	0.25	53.97	2.44	0.15	0.25	0.59	2.15
Finland	09/24	0.00	95.52	2.71	0.05	0.18	0.48	3.29
	09/29	0.50	85.11	2.98	0.12	0.20	0.57	3.14
France	05/28	0.75	89.65	2.84	0.12	0.22	0.62	3.06
	05/48	2.00	78.53	3.25	0.13	0.21	0.62	2.52
Germany	08/29	0.00	85.05	2.47	0.12	0.21	0.58	2.85
	08/50	0.00	52.63	2.35	0.14	0.24	0.60	2.27
Greece	01/23	3.50	100.16	1.64	-0.03	-0.01	0.28	1.85
	01/28	3.75	99.84	3.78	0.03	0.05	0.46	3.04
Ireland	-	-	-	-	-	-	-	-
	05/26	1.00	94.73	2.65	0.11	0.20	0.54	2.99
	02/45	2.00	79.98	3.29	0.14	0.23	0.63	2.63
Italy	02/25	0.35	94.03	3.33	0.09	0.11	0.60	3.25
	05/30	0.40	87.49	2.25	0.06	0.06	0.85	2.88
	03/48	3.45	82.21	4.66	0.15	0.21	0.80	2.77
Japan	04/25	0.05	99.80	0.14	0.01	0.02	0.06	0.05
	12/29	0.10	97.79	0.42	0.03	0.09	0.20	0.47
	12/49	0.40	77.19	1.42	0.03	-0.01	0.01	0.76
Netherlands	07/27	0.75	91.93	2.66	0.11	0.21	0.60	3.06
	01/47	2.75	101.30	2.68	0.13	0.22	0.63	2.55
New Zealand	05/31	1.50	80.27	4.33	0.00	0.05	0.20	2.05
	09/40	2.50	122.51	2.22	0.00	0.01	-0.04	1.55
Norway	08/30	1.38	87.39	3.27	0.10	0.25	0.11	1.62
Poland	01/23	2.50	99.55	8.79	0.98	1.67	1.50	5.64
	07/27	2.50	83.39	6.85	0.01	-0.03	-0.02	2.99
	04/47	4.00	67.41	6.77	0.00	0.02	-0.78	3.47
Portugal	04/27	4.13	104.91	2.89	0.07	0.13	0.58	3.04
Spain	-	-	-	-	-	-	-	-
	10/29	0.60	84.10	3.23	0.09	0.15	0.59	3.00
	10/46	2.90	86.56	3.76	0.13	0.22	0.59	2.58
Sweden	06/30	0.13	115.22	0.00	0.00	0.25	0.25	2.08
	03/39	3.50	118.48	2.14	0.00	0.14	0.32	1.67
Switzerland	04/28	4.00	112.66	1.49	0.05	0.20	0.50	1.84
	06/29	0.00	90.69	1.52	0.07	0.18	0.52	1.80
United Kingdom	07/23	0.75	98.57	3.30	0.00	-0.07	0.11	2.78
	07/27	1.25	90.01	3.64	0.00	0.05	0.36	2.93
	07/47	1.50	61.70	3.95	0.00	-0.02	0.44	2.81
United States	-	-	-	-	-	-	-	-
	03/25	0.50	91.96	4.28	0.09	0.15	0.05	3.23
	02/30	1.50	85.33	3.87	0.12	0.18	0.17	2.46
	02/50	0.25	67.56	1.76	0.05	0.15	0.12	-

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

GILTS: UK CASH MARKET

Dec 28	Price £	Red Yield	Change in Yield Day	Week	Month	Year	52 Week High	52 Week Low	Amnt £m
	-	-	-	-	-	-	-	-	-
Tr 0.75pc '23	98.62	3.24	-0.61	-0.92	3.51	548.00	100.39	97.34	34.36
Tr 0.125pc '24	96.26	3.66	-0.27	-1.35	10.57	463.08	98.90	94.34	35.55
Tr 2pc '25	95.97	3.59	0.00	1.41	14.33	435.82	104.66	93.15	39.93
Tr 0.125pc '26	90.14	3.53	0.00	2.02	13.87	419.12	97.59	86.33	35.32
Tr 1.25pc '27	90.05	3.64	0.28	2.25	12.69	412.68	102.70	85.65	40.99
Tr 0.875pc '29	83.64	3.60	0.84	3.15	14.29	350.00	100.18	78.21	43.62
Tr 4.25pc '32	104.65	3.66	1.39	2.81	18.06	289.36	132.20	98.13	40.33
Tr 4.25pc '36	103.59	3.90	1.30	2.90	15.38	271.43	141.37	94.91	31.68
Tr 4.5pc '42	106.29	4.04	1.25	2.54	16.76	257.52	161.79	93.79	28.35
Tr 3.75pc '52	96.63	3.94	1.03	2.34	17.61	261.47	167.54	82.51	25.11
Tr 4pc '60	104.52	3.77	1.07	2.45	19.68	284.69	194.31	87.32	25.13

Gilts benchmarks & non-rump undated stocks. Closing mid-price in pounds per £100 nominal of stock.

GILTS: UK FTSE ACTUARIES INDICES

Price Indices Fixed Coupon	Dec 28	Day's chg %	Total Return	Return 1 month	Return 1 year	Yield
1 Up to 5 Years	81.29	0.01	2338.39	-0.63	-4.57	3.63
2 5 - 10 Years	146.25	-0.27	3112.50	-2.99	-14.93	3.64
3 10 - 15 Years	156.02	-0.50	3584.76	-5.33	-22.72	3.90
4 5 - 15 Years	147.62	-0.33	3224.52	-3.69	-17.38	3.74
5 Over 15 Years	214.34	-0.82	3690.46	-9.85	-39.35	3.90
7 All stocks	134.99	-0.38	3015.09	-4.85	-23.40	3.84

Index Linked	Dec 28	Day's chg %	Month chg %	Year's chg %	Total Return	Return 1 month	Return 1 year
1 Up to 5 Years	323.62	-0.10	-0.55	2.32	2736.45	-0.55	3.50
2 Over 5 years	540.49	-0.85	-7.50	-38.27	4119.74	-7.50	-37.99
3 5-15 years	445.16	-0.55	-4.32	-16.67	3600.39	-4.32	-16.04
4 Over 15 years	613.41	-1.05	-9.54	-47.04	4539.21	-9.54	-46.88
5 All stocks	512.49	-0.73	-6.41	-34.00	3985.10	-6.41	-33.65

Yield Indices	Dec 28	Dec 23	Yr ago		Dec 28	Dec 23	Yr ago
5 Yrs	3.55	3.53	0.75	20 Yrs	4.02	3.97	1.26
10 Yrs	3.78	3.73	1.03	45 Yrs	3.68	3.63	0.97
15 Yrs	3.97	3.92	1.20				

Real yield	inflation 0% Dec 28	Dur yrs	Previous	Yr ago	inflation 5% Dec 28	Dur yrs	Previous	Yr ago
Up to 5 yrs	0.18	2.73	0.14	-3.45	-0.20	2.74	-0.24	-3.89
Over 5 yrs	0.46	19.74	0.42	-2.32	0.43	19.80	0.39	-2.34
5-15 yrs	0.38	9.62	0.32	-2.79	0.29	9.63	0.23	-2.89
Over 15 yrs	0.48	26.50	0.44	-2.26	0.47	26.52	0.43	-2.27
All stocks	0.46	16.92	0.41	-2.33	0.41	17.01	0.37	-2.36

See FTSE website for more details www.ftse.com/products/indices/gilts

©2018 Tradeweb Markets LLC. All rights reserved. The Tradeweb FTSE Gilt Closing Prices information contained herein is proprietary to Tradeweb; may not be copied or re-distributed; is not warranted to be accurate, complete or timely; and does not constitute investment advice. Tradeweb is not responsible for any loss or damage that might result from the use of this information.

COMMODITIES

www.ft.com/commodities

Energy		Price*	Change
Crude Oil†	Feb	79.13	-0.40
Brent Crude Oil‡		83.16	-1.52
RBOB Gasoline†	Jan	2.36	0.00
Natural Gas†	Feb	4.83	-0.29
Base Metals (♠ LME 3 Months)			
Aluminium		2374.00	-21.50
Aluminium Alloy		2100.00	100.00
Copper		8440.50	62.00
Lead		2243.50	-15.00
Nickel		30455.00	655.00
Tin		24940.00	1000.00
Zinc		3020.00	40.50
Precious Metals (PM London Fix)			
Gold		1800.70	-16.85
Silver (US cents)		2373.50	0.00
Platinum		984.00	-13.00
Palladium		1692.00	-8.00
Bulk Commodities			
Iron Ore		112.96	2.45
Baltic Dry Index		1515.00	-135.00
Richards Bay ICE Futures		203.35	-5.50

Agricultural & Cattle Futures		Price*	Change
Corn♦	Mar	674.00	-0.75
Wheat♦	Mar	776.00	1.50
Soybeans♦	Jan	1496.75	14.50
Soybeans Meal♦	Jan	457.60	5.80
Cocoa (ICE Liffe)✠	Mar	2068.00	3.00
Cocoa (ICE US)♥	Mar	2655.00	22.00
Coffee(Robusta)✠	Jan	1920.00	-39.00
Coffee (Arabica)♥	Mar	170.55	3.60
White Sugar✠		554.50	-17.60
Sugar 11♥		20.44	0.12
Cotton♥	Mar	84.47	0.23
Orange Juice♥	Jan	204.65	0.15
Live Cattle♣	Feb	157.75	0.00
Feeder Cattle♣	May	134.88	-
Lean Hogs♣	Feb	91.35	3.53

	Dec 23	% Chg Month	% Chg Year
S&P GSCI Spt	600.96	-0.41	6.14
DJ UBS Spot	112.17	-2.00	12.04
TR/CC CRB TR	302.00	2.30	21.23
LEBA EUA Carbon	58.91	-1.98	129.94
LEBA UK Power	1048.00	-37.43	-39.60

Sources: † NYMEX, ‡ ECX/ICE, ♦ CBOT, ✠ ICE Liffe, ♥ ICE Futures, ♣ CME, ♠ LME/London Metal Exchange.* Latest prices, $ unless otherwise stated.

BONDS: INDEX-LINKED

	Price Dec 27	Yield Dec 27	Yield Prev	Month return	Value stock	Market	No of stocks
Can 4.25%' 26	110.89	1.386	1.394	0.68	5.25	73045.03	8
Fr 0.25%' 24	100.90	-0.321	-0.379	-0.75	17.92	246705.82	17
Swe 1.00%' 25	125.80	-0.210	-0.216	0.18	35.38	218501.09	6
UK 0.125%' 24	101.91	-1.408	-1.394	0.05	15.24	569435.57	31
UK 2.50%' 24	376.47	-0.464	-0.466	-0.13	6.82	569435.57	31
UK 2.00%' 35	241.93	0.341	0.339	-4.51	9.08	569435.57	31
US 0.625%' 24	97.87	2.695	2.704	0.24	40.98	1616185.75	47
US 3.625%' 28	109.30	1.776	1.731	-0.72	16.78	1616185.75	47

Representative stocks from each major market Source: Merill Lynch Global Bond Indices † Local currencies. ‡ Total market value. In line with market convention, for UK Gilts inflation factor is applied to price, for other markets it is applied to par amount.

BONDS: TEN YEAR GOVT SPREADS

	Bid Yield	Spread vs Bund	Spread vs T-Bonds		Bid Yield	Spread vs Bund	Spread vs T-Bonds
Australia	3.83	1.35	-0.04	Netherlands	2.66	0.19	-1.21
Austria	3.00	0.53	-0.87	New Zealand	4.33	1.86	0.46
Canada	3.13	0.66	-0.74	Norway	3.27	0.79	-0.60
Denmark	2.72	0.25	-1.15	Portugal	2.89	0.41	-0.98
Finland	2.98	0.51	-0.89	Spain	3.23	0.75	-0.64
Germany	2.47	0.00	-1.40	Sweden	0.00	-2.47	-3.87
Italy	2.25	-0.23	-1.62	Switzerland	1.52	-0.95	-2.35
Japan	0.42	-2.05	-3.45	United States	3.87	1.40	0.00

Interactive Data Pricing and Reference Data LLC, an ICE Data Services company.

All data provided by Morningstar unless otherwise noted. All elements listed are indicative and believed accurate at the time of publication. No offer is made by Morningstar, its suppliers, or the FT. Neither the FT, nor Morningstar's suppliers, warrant or guarantee that the information is reliable or complete. Neither the FT nor Morningstar's suppliers accept responsibility and will not be liable for any loss arising from the reliance on the use of the listed information. For all queries e-mail ft.reader.enquiries@morningstar.com

Data provided by Morningstar | www.morningstar.co.uk

POWERED BY MORNINGSTAR

Equity Research from Morningstar

Make confident investment decisions powered by our independent global insights and a consistent methodology across our qualitative and quantitative universes.

Get your next investing idea from one of the world's largest independent analyst teams at morningstar.com/products/research/institutional

MORNINGSTAR®

Signing makes Shakespeare's comedy sing

THEATRE

Sarah Hemming

As You Like It
Soho Place, London
★★★★☆

Hakawatis
Sam Wanamaker Playhouse, London
★★★☆☆

The dark days at the year's end are the perfect time to gather by candlelight for tales of darkness vanquished and hope rekindled. Two London theatres offer just the show, both beguiling and, in both, wily women use their wit and words to outrun the plans of a tyrannical man.

To Shakespeare's Forest of Arden first, where, in **As You Like It**, Rosalind and Celia turn banishment from court into a form of liberation, in a gorgeous staging at the Soho Place theatre. Slipping into trousers (Rosalind) and rustic wear (Celia), the two young noblewomen transform themselves into Ganymede and Aliena, with Rosalind savouring the freedom to tutor, incognito, the dishy Orlando in the ways of love, and Celia dizzy with excitement at being out from under the thumb of her bullying father.

Josie Rourke's beautiful, intimate production relishes the warmth of the circular auditorium, bringing to the staging the simplicity often found at Shakespeare's Globe and slipping deftly through the light and dark of this dappled story. There's little scenery; instead the stage is dominated by a grand piano at which musician and composer Michael Bruce sits throughout, shaping the atmosphere with music and patiently bearing the frequent interruptions from besotted lovers who fling themselves atop his piano in dramatic gestures of despair or desire.

Rob Jones's design fuses an Elizabethan aesthetic with the present day. The costumes (designed by Jones and Poppy Hall) encase the courtiers in glittering high-concept versions of ruffs and corsets and swathe the forest runaways in desirable, soft-hued knitwear.

Rose Ayling-Ellis, left, and Leah Harvey in 'As You Like It' — Johan Persson

Shifts in lighting and precipitation sculpt the season and the mood: a candlelit chandelier lights the court scenes; glowing autumn leaves carpet the stage as the characters arrive in the forest; snow drifts down softly over the body of faithful old servant Adam as he eases out of this life (a wonderful performance from June Watson). The forest, as so often in Shakespeare, represents a psychological space as much as a physical one — a place where people can transform, revive, become themselves.

The biggest innovation in Rourke's production comes with the casting of Rose Ayling-Ellis, who is deaf, as Celia. The actor — known to many as the winner of the BBC's *Strictly Come Dancing* — brings a lovely, sunny openness to the part and her relationship with Leah Harvey's vivid, intelligent Rosalind gains a new layer. The pair use sign languages to speak to one another, which seems to deepen their affectionate bond.

The theme of communication — already present in the play, with Rosalind's lessons for Orlando — is subtly emphasised, with captions and sign language woven through the production. Celia's tyrannical father, Duke Frederick (Tom Edden), refuses to sign and so she is forced to speak aloud to him; she often spots the looming pitfalls as Rosalind flirts with Orlando but cannot warn her friend, who has her eyes on the prize.

Alfred Enoch is an endearingly impetuous Orlando, ablaze with terrible poetry and earnest passion; Gabriella Leon, who is also deaf, makes a wonderfully raunchy shepherdess; and Martha Plimpton's strange and disconsolate Jaques glides through the action, offsetting the giddy love stories with a well-founded melancholy about the brevity of life. The production's capricious pace and light touch mean that it misses some of the reflectiveness and the through-line of the piece: it feels disjointed in places. But this is a joyous staging, and its rich diversity of casting embraces the spirit of both the play and this new venue.
To January 28, sohoplace.org

In **Hakawatis**, Hannah Khalil's new play in the candlelit Sam Wanamaker Playhouse, she brings a playful authorial conceit to the age-old tale of Scheherazade and her ploy to stave off execution through narrative cliffhangers. Here five women, locked in a dungeon and awaiting their turn to be bedded and beheaded as the murderous ruler's wife, realise with horror that their storytelling saviour might develop writer's block. So they begin to create stories, smuggling them out to Scheherazade and praying that their words will be enough to placate a vengeful king's heart.

At first their efforts are hesitant or they rehash old fables — albeit with fierce arguments about the precise details. But gradually the women find their voices and craft tales that speak for and about them through metaphor (several of them written for this show by Hanan al-Shaykh, Suhayla El-Bushra and Sara Shaarawi). Through the veil of storytelling we glimpse abusive childhoods and violent marriages. The women discuss the art of writing — the use of suspense, the power of suggestion — and find themselves so caught up in one story that they act it out, forgetting the grim circumstances of their confinement. It's fascinating, funny, playful — and often quite amazingly rude.

These women are emphatically not victims: they are resourceful and resilient. While they are defined by type — the warrior (Laura Hanna), the dancer (Houda Echouafni), the young person (Alaa Habib), the writer (Nadi Kemp-Sayfi), the wise (Roann Hassani McCloskey) — they change through the experience. Hanna's abrasive fighter reveals her vulnerability; Habib's naive teenager grows in confidence and clarity.

More of this definition earlier would be good: the shape of the piece is a little muddy and it takes a long time for the women's characters and relationships with one another to emerge. Some of the theorising about who gets to tell and define stories leaps out awkwardly. Meanwhile the circular, static nature of the piece and the lack of incident, while a deliberate alternative to the cut-and-thrust of action-based narratives, makes for a slow and sometimes sticky pace.

But this is still a wise, witty show that celebrates the power of imagination and the collective strength of women, and it's deftly delivered by a very good ensemble. Pooja Ghai's staging (a co-production with Tamasha) draws out the playfulness of storytelling and delights in the venue's use of candles, with the women passing a taper to the narrator of each story. There's quiet recognition too of the women's practicality: while listening they often wash, tidy up or rinse out clothes.

The biggest innovation comes with the casting of Rose Ayling-Ellis, who is deaf, as Celia

Rosa Maggiora's set takes on the warm glow of an old painting and the whole thing is laced with music from the gallery above. And finally, as the cell door finally opens and the women tiptoe out, the show leaves a question mark hanging over their next moves — ending, as is only right, on a cliffhanger.
To January 14, shakespearesglobe.com

From left, Houda Echouafni, Roann Hassani McCloskey, Nadi Kemp Sayfi and Laura Hanna in 'Hakawatis'
Ellie Kurttz

FT ADVISER

RDR: State of the advice market 10 years on

24 January 2023 | Morning briefing London

It is now 10 years since the Retail Distribution Review came into effect, ushering in the biggest change to the adviser marketplace since depolarisation in 2004.

Over the past decade, we have seen the rise in adviser professionalism, increasing transparency on fees and a strong focus on consumer outcomes. But we have also witnessed an ever-widening advice gap, caused by an initial outflow of advisers and the removal of commission; a tightening professional indemnity insurance market and ever-burdensome levies on firms who remain.

This event, brought to you by FTAdviser, will explore how advisers can build on the experience of the past 10 years to succession-proof their businesses for the next 10 years, reach a wider range of clients and use the advances in technology to streamline processes and grow their operations.

Register now at:
rdr.ftadviser.com

Sponsored by

Phoenix Standard Life
Part of Phoenix Group

An event from the Financial Times

Christmas music brings in the crowds

CLASSICAL MUSIC

Dunedin Consort/Tallis Scholars
Wigmore Hall & St John's, Smith Square, London

Richard Fairman

It seems that Christmas arrived just in time. After a year in which attendance at live music events has often looked worryingly thin, a sudden pick-up during December has seen packed audiences across the board, from the long run of *Tosca* at the Royal Opera House to concerts across London.

Nothing less would have been expected for the Dunedin Consort pre-pandemic, and a nearly full house greeted the Scottish group's pre-Christmas concert at Wigmore Hall. The focus of interest was Schütz's clear telling of the nativity story in *Die Weihnachtshistorie*, but as that lasts less than an hour, it was preceded by a selection of shorter, mostly seasonal pieces by the German composer and his Italian contemporaries.

A handpicked group of 10 singers in various combinations was accompanied by an instrumental ensemble of just over a dozen. Conductor John Butt had chosen his programme for maximum contrast, from the gloriously affirmative Alleluias of Schütz's "Hodie Christus natus est", sung one to a part like everything here, to Monteverdi's rhythmically uplifting "Laudate pueri Dominum". The discovery in this first half was Alessandro Grandi's "Plorabo die ac nocte", a sorrowful intertwining of some fine solo voices that plumbed a very different, highly chromatic, expressive vein.

Although *Die Weihnachtshistorie* has a similarity to Bach's Easter Passions, its brevity makes the work more concentrated. The Evangelist is even more the linchpin and tenor Nicholas Mulroy was clear and forthright in the role. There was a comparable strength of purpose about the performance as a whole and the use of recorders to accompany the shepherds or sackbuts for Herod's priests offered vivid contrasts in the Wigmore's intimate acoustic. Michael Mofidian's resonant bass voice stood out as Herod. ★★★★☆

It was equally good to see St John's, Smith Square, filled for the Tallis Scholars, one of the prime events in the venue's 37th Christmas festival. On the cusp of their 50th anniversary, Peter Phillips and his ensemble long ago secured their place in the top echelon of professional, early music choral groups.

This programme eschewed festive favourites. The main work was Byrd's *Mass for Five Voices*, which was threaded through shorter pieces in praise of the Virgin Mary. The Byrd was emotionally cool, pristine in sound. With two singers to a part, probably the optimum number in a venue of this size, this inevitably felt more like a public performance than the private communing of five individuals hymning their Catholic faith away from prying Protestant ears in the Tudor era.

Around it came what Phillips called a "polyphonic kaleidoscope", placing the earlier Tudor beauties of Robert Fayrfax next to Italian aberrant one-off Gesualdo, and the 10-voice richness of Gombert's "Regina Caeli" before the wealth of invention in "O splendor gloriae", attributed to Taverner and Tye. All benefited from the Tallis Scholars' technical mastery and concentration. Their 50th anniversary concert will be celebrated at Middle Temple Hall, London, in November next year. ★★★★★

wigmore-hall.org.uk; sjss.org.uk

John Butt conducts the Dunedin Consort at Wigmore Hall

FT BIG READ. EUROPEAN ECONOMY

A Baltic warning over inflation

With prices now over 20 per cent higher than a year ago, policymakers fear the region is providing an early indicator of how inflationary pressures could develop across the rest of Europe next year.

By Richard Milne and Martin Arnold

When inflation reached an almost unthinkable 20 per cent this year in Lithuania, residents in the rural south of the Baltic country began to tighten their belts.

"People are buying less. It's hard. Everybody is trying harder, wearing what they already have more, shopping less," says Laima, a 58-year-old woman who sells socks and other clothes from the boot of her car.

Across the main road in Sangrūda, a sleepy village of 200 people close to the border with Poland, it is the same story at the Aibė grocery store. "When the war broke out, people's purchasing power dropped and they started saving money," says Gintarė, the 32-year-old cashier. "Fuel and heating became more expensive, electricity, taxes . . . And food was left as the last thing to think of. People take what is most important now, cheaper goods, discounted ones."

Inflation has been on the rise across the west to levels last seen decades ago, but few places have experienced a rise in prices quite like Estonia, Latvia and Lithuania, where inflation rose above 20 per cent this summer and is still above 21 per cent in all three countries.

While there are local factors that explain some of the surge, policymakers in the Baltics warn that the region is providing an early indicator of how price pressures could develop across Europe over the next year, even if the headline rate of inflation peaks.

Lithuanian prime minister Ingrida Šimonytė says people accept the economic impact of sanctions on Russia

Mārtiņš Kazāks, Latvia's central bank governor, says the Baltics are a "canary in the coal mine" for the wave of inflation hitting Europe.

It is a worrying message for other European countries, where inflationary pressure could remain high over the winter and spring as energy price rises feed through. "We have front-loaded most of the external shock already," adds Kazāks. "In other countries, it is still being passed through."

Economists in the Baltics report how experts from other European countries are amazed by the seeming acceptance with which the public have greeted such extreme inflation. "Colleagues from abroad ask me: why are there no protests?" says Greta Ilekytė, an economist at Swedish lender Swedbank, the biggest bank in the Baltics.

The Baltic states have two big advantages that most other western countries do not, say policymakers. First, they have experienced relatively high inflation for several years amid strong wage growth as their economies catch up with the rest of Europe, meaning that the sudden jump came as less of a jolt. And second, memories of their forced occupation by the Soviet Union for decades means they are more accepting of the consequences of Moscow's current brutality in Ukraine, even if there are some worries about the potential for populists to exploit the situation.

"This understanding is significantly stronger here than in other parts of the world," says Ingrida Šimonytė, Lithuania's prime minister. "It would be very hard to gain major support among the population here for the idea that 'it's because stupid governments have imposed sanctions on Russia, this is why you're paying high prices'."

A recent history

Inflation had already been picking up in the Baltic countries well before Russia's full-blown invasion of Ukraine in February. Estonia, Latvia and Lithuania all had inflation rates close to zero at the start of 2021 but by this January they were up to 7.5-12.3 per cent, well above the eurozone average.

Unlike much of Europe, the Baltic countries also have recent experience of high inflation, such as in 2008, when Latvian inflation hit 18 per cent, which means the latest price surge has had less of an impact on the national psyche.

"In 1992, when we had just regained our independence, inflation hit 950 per cent," says Kazāks. "It is not like Germans who have not seen double-digit inflation for generations. We know it is nasty, but it is not like we have never seen it before."

Gediminas Šimkus, head of Lithuania's central bank, points out that people's living standards have risen dramatically in recent years, making it easier to absorb the recent reversal in purchasing power, helping to explain why the Baltics have avoided much of the protests and strikes seen elsewhere in Europe.

Wages have doubled in Lithuania since it joined the euro in 2015, while consumer prices are up only 40 per cent in that time. "Living standards have been getting much higher," says Šimkus. "So there is an economic explanation why you still don't have riots." Ilekytė points out that Lithuania is now richer — on a GDP per capita basis, adjusted for purchasing power — than Spain, Portugal or Greece and not far behind Italy.

The recent crisis has only increased public support for the euro despite criticism elsewhere on the continent of the European Central Bank's slow response to surging inflation, according to Šimkus. "Being a member of the euro area is a support for our safety. It is not only about economics and convergence. It is also a certain guarantee for our independence. That is how it is perceived. It is an extra layer of protection," he adds.

Lithuanians like Vida and her husband Petras, above, are feeling the crunch. Gediminas Šimkus, head of the country's central bank, right, says people in the Baltics are hurting as they typically earn less than in much of Europe

Tadas Kazakevicius/FT

Local factors

The central bankers say inflation rose faster in the Baltics due to a number of differences with the rest of Europe, including the greater use of spot energy prices rather than the longer-term, fixed contracts that companies have in much of Europe.

"So we see this reaction coming much quicker. For other euro area countries, the full effects are still to come," Kazāks says.

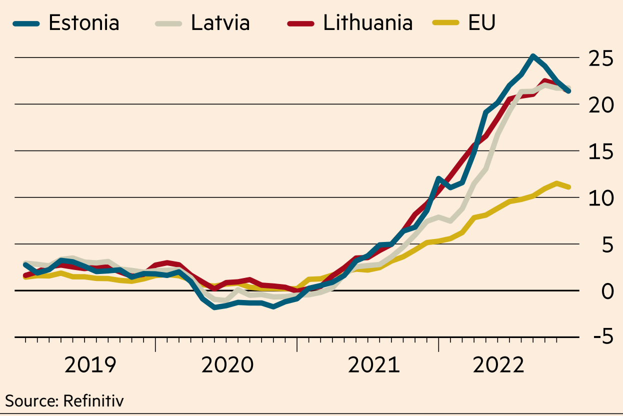
Šimkus says inflation is also higher in the Baltics because people there on average earn less than in much of Europe, meaning they spend a bigger proportion of their income on essentials like energy and food, for which prices have risen furthest.

"Expenses for heat energy are almost four-times higher as a share of income in Lithuania than in the euro area," he says. "Expenses for solid fuels are almost three times higher." Lithuania's central bank calculated this difference made local inflation 2 percentage points higher than the rest of the eurozone.

There is still plenty of concern among the local population, especially over what will happen through the winter. "Inflation has done its job — what we use to grow flowers has become very expensive. For us, our costs have doubled compared with two years ago," says Raimonda Skeberdienė, the 33-year-old owner of a small flower farm on a dirt track outside Sangrūda.

Inflation in the Baltics has nearly doubled that of Europe

Annual % change in harmonised index of consumer prices



Source: Refinitiv

Vida, a neighbouring 63-year-old farmer, adds: "Everybody is feeling inflation. Not everyone earns a good salary, so it's hard for people. We went to the shops today and there were not many people. They used to buy anything. But now they are choosing what to buy."

The Baltic governments have responded like most in Europe by offering support schemes to damp the effect of the price increases, especially in energy. "You need to see where the balance is between what you can pass on to consumers and what you can compensate with excess borrowing by the state. Nobody is happy," says Šimonytė.

So far, there has also been relative political unity, with most parties not wanting to give Russia a propaganda victory by protesting too much. "We can't play around and use anything we get as a weapon to beat our opponent," says Gintautas Paluckas, parliamentary leader of the opposition Social Democrats in Lithuania. "It's a matter of a common threat we are facing and on important issues we stand together. Our political system is still in its infancy and will not allow foreign agents to bring in a fight."

An opening for populism

But there are worries about more extreme forces brewing. In Estonia, the far-right party Ekre has cemented its position as the second-biggest political force in the country behind the Reform party of Prime Minister Kaja Kallas ahead of parliamentary elections in March. Pollsters attribute much of Ekre's recent gains to angst about the rapid rise of inflation.

Margarita Šešelgytė, director of the Institute of International Relations and Political Science at Vilnius University, says that in Lithuania one of the most popular politicians in recent polls is Ignas Vėgėlė, a lawyer who has attracted attention for his anti-vaxxer comments on Covid-19. "It will have political consequences. We have some radical forces that are on the rise," she adds.

Still, the war in Ukraine offers a powerful antidote to protests in these countries on the frontline between the west and Nato on one side and Russia on the other, three decades after they regained their independence from the Soviet Union.

"There is this realisation: let's not complain too much, at least we don't have war. The realisation we could have war here is much higher than in countries further away from Russia. Here it's very vivid," says Šešelgytė.

"Our memories of the Soviet Union are still alive" adds Ilekytė. "If you are going to protest, then what are you protesting against? Ukraine probably."

There are already signs that these price pressures are taking their toll on the Baltic economies. Estonia and Latvia have been the weakest performers out of the 19 euro area members so far this year, after their economies contracted 2.3 per cent and 0.4 per cent respectively in the third quarter from a year earlier.

The slowdown has been particularly acute in the industrial sector, where production fell 5.8 per cent in the year to October in Estonia and 2.7 per cent in Latvia. While Lithuania's economy has held up better, its 2.5 per cent growth in industrial output in the same period was below 3.5 per cent growth in the overall eurozone.

One of the biggest political issues is the price of heating over winter as each government faces questions over how much financial support to offer. "I burn mulch. Of course, I feel the price increase. The price of materials has also gone up," says Algis, a 78-year-old who works in Sangrūda's modest thermal power station that heats the local school, foster home, and other municipal buildings.

Some politicians in the region believe that the potential problems from higher inflation are easier to manage than they would be in many other parts of Europe.

"It is easier here. In other countries, where I see double-digit inflation in the old eurozone countries, where you know the labour market is rather stable and the wage growth is rather different from what we have in this part of Europe, it is probably much more pressing," says Šimonytė.

> 'It is easier here. In other countries, where I see double-digit inflation, where you know the labour market is rather stable, it is probably much more pressing'

She adds that Lithuania is still protected by dint of it still catching up with the European average in economic terms: "We're in a more comfortable position as a converging country. But you still need to be vigilant because it is easy to blow the public finances."

The high wage growth of the Baltic region sets it apart from much of the rest of Europe over the past decade and boosts its ability to cope with the current period of unusually high inflation, according to economists.

In Lithuania, wages have almost trebled in the past decade, while they have risen about 95 per cent in Latvia and 85 per cent in Estonia, according to Eurostat, the European Commission's statistics agency. But in the same period, EU wages are up only 26 per cent.

"Here in Sweden, we are lucky to have 1 or 2 per cent real wage growth in a good year," says Jens Magnusson, chief economist at Swedish bank SEB. "But in the Baltics they've had 6 or 7 per cent real wage growth for several years and that provides a cushion to make it easier to cope with such high inflation now."

In countries like Germany, which until this year had not experienced double-digit inflation since 1951, such rapid price rises are more of a psychological shock than in the Baltics, where such inflationary bursts are a more frequent occurrence.

"Inflation of 10 per cent in the rest of Europe is at least as impactful and difficult as 20 per cent inflation in the Baltics," Magnusson says, pointing out that their relatively low levels of government debt gave Baltic countries more fiscal leeway to provide support to those hit hardest by high energy and food prices.

Peak inflation?

There was widespread relief among central bankers after eurozone inflation fell from its record high of 10.6 per cent in October to 10.1 per cent in November — its first decline for 17 months. "When I look at the inflationary pressures in the euro area it resembles what we experienced in Lithuania six months ago," Šimkus says, adding that the "peak of headline inflation in the euro is probably just around the corner". Ilekytė says she still forecasts inflation will be 8-9 per cent in 2023.

> 'I think the pass-through of these energy impulses into final goods and services is still to be seen. That is exactly what worries me'

But Lithuania's central bank governor adds that even if wholesale European energy prices do not return to their recent record highs, the cost of many goods and services will keep rising at well above the ECB's 2 per cent target for an uncomfortably long period. "I think the pass-through of these energy impulses into final goods and services is still to be seen," he says. "That is exactly what worries me."

Officials in both the Baltics and the rest of Europe worry that the surge in inflation will leave behind traces for years to come. "This is not a passing shock," says Latvia's central bank governor, Kazāks. "This is a permanent shift, which requires structural solutions."

He says the EU needs to come up with a coherent and ambitious energy strategy: "If we are unable to ensure that our economies get access to affordable energy, we will start losing companies that are energy intensive and they will relocate and that will have consequences in terms of unemployment and lower growth."

Additional reporting by Urtė Alksninytė in Sangrūda

The FT View

FINANCIAL TIMES
'Without fear and without favour'

ft.com/opinion

The new world order and the rise of the middle powers

Return of great power rivalry brings opportunities for those in between

Vladimir Putin's invasion of Ukraine this year brought to an end the post-cold war reconciliation between Russia and the west. Rivalries between the US and China have increased, too, as Beijing ramped up its military pressure on Taiwan and Washington tightened controls on technology exports to China. Great power confrontation is back.

Even countries that are not sending military aid to Ukraine, or limiting trade with Russia or China, ought to be concerned. If Russia followed through on its hints that it might use nuclear weapons, the entire world would be thrust into a perilous new era. Great power rivalry has also led to a proliferation of economic sanctions, which threaten trade and investment flows and have made countries in the global south ever more wary of the dollar's dominance of the international financial system.

Yet increased competition between a US-led western alliance and a Russia-China axis offers opportunities as well as threats for "middle powers". As Washington, Brussels, Beijing and Moscow attempt to bend world affairs in their direction, they have to pay more attention to the views of those in between — such as Turkey, Saudi Arabia, Indonesia and South Africa.

Recep Tayyip Erdoğan, the authoritarian Turkish president, is under pressure at home. But on the international stage he has played his hand skilfully, and at times ruthlessly. Despite its Nato membership, Turkey has not joined western sanctions on Russia. Erdogan's government has even blocked applications by Finland and Sweden to join Nato, as it seeks to extract concessions from its allies.

Turkey can play geopolitical hardball as the Ukraine war has given Ankara real leverage. The Turks brokered the deal to allow grain to be transported across the Black Sea, easing food price inflation across the world. Turkey may yet play a significant role in future peace negotiations.

The rising energy prices associated with the Ukraine war have also increased Saudi leverage. Joe Biden once talked of turning the country into a "pariah". But he paid a respectful visit to Riyadh over the summer. In recent weeks, the Saudis have hosted Xi Jinping, China's leader.

India, which has realistic aspirations to become one of the world's superpowers during this century, is also charting a middle path. It has outraged some in the west by importing cheap Russian oil. But India knows it can get away with this as it is also crucial to western efforts to balance Chinese power.

Nonetheless, disillusionment with the global south has led to talk in western capitals of the need to put a revitalised western alliance at the centre of global policymaking. Jake Sullivan, Biden's national security adviser, has spoken of the G7 — which is dominated by the US and Europe — as the "organising committee of the free world".

> Turkey can play geopolitical hardball as the Ukraine war has given Ankara real leverage

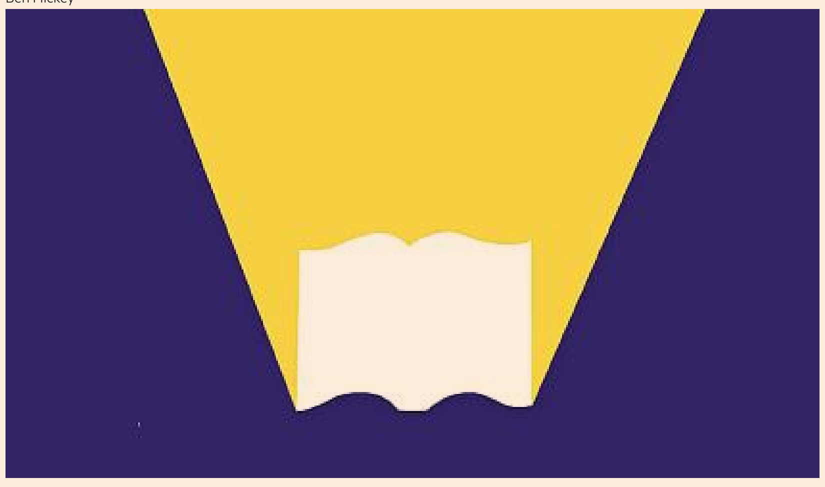
In elevating the G7, however, the west cannot afford to ignore the middle powers that are represented at the G20. Their growing economic heft means they are crucial to shaping the rules on trade, technology, sanctions and international norms. The G20 statement after November's summit in Indonesia was also encouragingly tough in its condemnation of Russia — showing it would be a mistake to give up on influencing the middle powers of the global south.

Those countries themselves also need to think carefully about their own position. Defending their economic interests and calling out western double standards is fair enough. But unchecked aggression by Russia and China would eventually also threaten the interests of middle powers such as Turkey, Indonesia, India and the Gulf states. That, too, is a lesson that needs to be absorbed.

Opinion Literature

Why we should all be reading more fiction

Ben Hickey



Jemima Kelly

Betwixtmas — or *Romjul*, for those of you with more Nordic tastes — is a wonderful time of year to read. But not for doomscrolling on Twitter, hate-reading your secret-favourite tabloid, or even picking up that history book you got for Christmas — all this can wait. It is much more a time, I think, for getting thoroughly lost in a great work of fiction. (The only columns you should read, of course, are those dedicated to this pursuit.)

There is nothing cosier than curling up on the sofa, tucking oneself into bed, or — my favourite — sinking into a deep, steaming-hot bath with a good novel, to be transported to lands far away, times long gone or the minds of characters strange, sex-obsessed and sadistic. (Or perhaps that's just me; I am currently reading Philip Roth.)

Many of you might think this sounds a little self-indulgent, and I am not immune to such concerns: my grandmother used to say that you should never read a novel before the evening because they're "not serious things". Male readers might be particularly prone to such thinking — studies suggest only 20 per cent of men read fiction, while 64 per cent of novels sold in 2021 in Britain were bought by women.

> Anything that can build a more complex and nuanced worldview must be embraced

But novel reading is about more than mere *hygge*-esque hedonism. It was Aristotle himself who said that "poetry is a more philosophical and a higher thing than history, for poetry tends to express the universal, history the particular".

Aristotle was writing before the novel had come into existence as an art form, but his argument can be applied to fiction more broadly. In a history book, a narrative is imposed on a messy jumble of events; stories are told as if they progress tidily and even rationally. This isn't a criticism; it's just the nature of the medium. With a novel, however, there is no such imposition: the thing itself *is* the narrative; there is no alternative version of the truth.

A novelist is like a magician: although they are writing fiction, they have a certain authenticity about them, because we understand we are reading something that's not real. And as Aristotle suggests, it is this that allows the characters in a novel to somehow feel more real to us than historical figures; each represents a kind of embodiment of the human condition that we can relate to.

Many studies have found that reading works of "literary fiction" — as opposed to non-fiction or pop fiction — increases empathy and emotional intelligence. This is because the reader is exposed to a much broader range of experiences and cultures than they would come across in real life, which helps them understand that other people have beliefs, desires and perspectives that differ, sometimes greatly, from their own.

A recent study, published in *Personality and Social Psychology Bulletin*, found those who had grown up reading literary fiction had "a more complex worldview" than those who had not. The authors define this as being characterised by a few factors. One is an "increased attributional complexity": these people are comfortable with ambiguity and can understand behaviour in terms of complex systems. Another is lower "psychological essentialism" — the idea that human behaviour can be explained by certain immutable characteristics.

"Encountering difference, encountering different minds, encountering different sorts of sociality helps to scaffold this belief in the complexity of the world," Nick Buttrick, the study's lead author and psychology professor at the University of Wisconsin-Madison, tells me. "If you've only ever encountered one sort of mind . . . and if you're only reading . . . things which are predictable, safe, stable, people end up with a view of the world that is uncomplex, because that's what you get repeatedly reinforced with."

The study echoed another from 2013, which found those who read literary fiction had a lower need for cognitive closure — the desire to remove ambiguity and arrive at definite conclusions even if they are incorrect or irrational.

In a world so teeming with polarised politics, anything that can contribute to building more complex and nuanced worldviews should be embraced. So I hope to have convinced all you life-hackers and productivity gurus that you can't actually "hack" the benefits you get from reading a great novel.

But I am also partly writing this column as a reminder to myself to read more of them — this year I have managed only six. Next year, I am going to aim for one a month, minimum. Perhaps I will even allow myself to read them in the daytime on occasion. Because they *are* actually very serious things, Granny.

jemima.kelly@ft.com

Letters

Email: letters.editor@ft.com
Include daytime telephone number and full address
Corrections: corrections@ft.com
If you are not satisfied with the FT's response to your complaint, you can appeal to the FT Editorial Complaints Commissioner: complaints.commissioner@ft.com

UK shows flaws of using numerical targets to protect fisheries

The COP15 agreement is described in your report as a "landmark" and "historic" (December 20). One of its main commitments is to safeguard 30 per cent of coastal areas and oceans. Negotiators should have concentrated on actual measures rather than fancy numerical targets, which as usual will not be met.

The UK is an egregious example. At the UN Summit on Biodiversity in 2020, prime minister Boris Johnson claimed Britain was already protecting 26 per cent of its sea and was "world leading". But studies have shown that bottom trawling and dredging, the most destructive forms of industrial fishing, have been deployed in 71 of 73 offshore Marine Protected Areas (MPAs) around Britain. A Greenpeace investigation found that 25 supertrawlers, including 15 Russian vessels and the four biggest vessels in the world, were fishing in 39 of the UK MPAs. In 2020, the UK government blocked an amendment to the Fisheries Act that would have banned supertrawlers in MPAs. That is not protection. The government has slashed the budget for the Marine Management Organisation, and last year licensed over 1,000 foreign and UK vessels to bottom trawl in so-called protected areas. That is not protection either.

The UK possesses over 4mn square miles of sea space, but has just 12 coastguard vessels to protect all British sea space against illegal and unregulated fishing. What protection?

Breaking the law on fishing is treated as a civil offence, not criminal. So, when the largest vessel in the British fleet was found with 632,000 kilos of illegally caught mackerel, it was fined £96,000, and allowed to sell the fish.

In sum, COP15 should have focused on actual measures of protection not on nominal target figures that everybody knows are fictitious.

Professor Guy Standing
SOAS University of London, UK

Just ask Crimean Tartars how they feel about Russia

Further to Professor Jeffrey Sach's letter urging a negotiated settlement with Russia's Vladimir Putin to end the conflict in Ukraine ("A misreading of the true choices facing Ukraine", December 9), I cannot disagree more. Concerning Russia's historic claims to the Crimea, how about we ask the Crimean Tatars their take on this issue.

Historic Russia goes back to a Slav state founded by Scandinavians, with an eventual monarchy with strong western European blood ties.

Can Tsarist Russia's quest for a warm water port justify the eventual conquest of Crimea?

The Russian state has conquered 50 square miles of territory for every year of its existence since Ivan the Terrible. Is this justification for the reconquest of a fellow Slavic state?

What happened to the internationally recognised right of a people's self-determination? Russian hegemony does not preclude other Slavic peoples' right to self-government and statehood.

Russia may be the "friend" and "big brother" of South Slavs, but was never so to the Poles and Ukrainians.

Who needs enemies with friends like these? One does not negotiate with terrorists; be it a state or an organisation, cult, sect or movement etc and, on a personal note, those Russians that I know are appalled by what their country is doing . . .

Ted Gaffney
Waterford, CT, US

Now taboo in Britain, yet the Swiss swear by it

Reading Henry Mance's Weekend Essay on the Just Stop Oil protests (Life & Arts, December 10), I realised that Swiss democracy is Aristotelian. The Swiss are wary of any parliamentary oligarchy. They don't favour citizens' assemblies either. Their preferred tool for resolving issues is the referendum.

The term may be taboo in the UK after Brexit, but in Switzerland referendums can be called at the request of 50,000 citizens — or 100,000 to change the constitution — with such votes taking place about four times a year, to align parliament and government with popular opinion. Issues range from European Economic Area membership to tax, welfare, healthcare, infrastructure, immigration, climate, environment and, most recently, animal testing, tobacco and media support.

Before polling, booklets are sent to all citizens setting out the positions of both sides. No matter the charges levelled at the system, the Swiss like this means of combining protest with legislative action.

Bruno Boesch
London W11, UK

Brexit sulking does not explain underperformance

It seems Janan Ganesh — usually the most nuanced and original of FT columnists — has taken to riding the tired old "Remainer" hobby horse of attributing every UK ill since 2016 to Brexit. Although with his customary wit (plus evident relish but rather convoluted logic) he makes a virtue of the damage he sees as inflicted by Brexit (while aiming to sprinkle salt into Brexiters' wounds) by thanking Leave voters for delivering the outcome he has always wanted ("Brexit has made Britain a more European country", Opinion, November 30).

Perhaps he should consider the rather more obvious cause of the UK's relative underperformance highlighted in the FT leader "The mystery of Britain's missing workers" (FT View, December 1), namely UK workers' greater reluctance than their foreign counterparts to return to work, whether full time or at all, since Covid.

I've read many suggestions for this "economic inactivity" — but never that the 4mn are somehow constrained by, or sulking over, Brexit . . .

Charles Mercey
Tellisford, Somerset, UK

OUTLOOK

ASIA

Exit from zero-Covid is no easy path for China

by Joe Leahy

Arriving in Beijing from Hong Kong in late October, my family and I witnessed Xi Jinping's now defunct zero-Covid regime at its awful peak.

As we filed into the deserted airport, one of the policy's foot soldiers — the *Dabai* or "Big Whites" in full PPE uniforms — shouted at us. We were sent for 10 days of quarantine in a hotel so drenched with disinfectant that it stung the nostrils. Yet few of us that day could have imagined that within weeks, China's zero-Covid experiment would collapse, resulting in a tidal wave of cases.

For President Xi and his new leadership team, appointed in October during the Communist party's quinquennial congress, their handling of the country's chaotic exit from zero-Covid will determine not only how they are viewed domestically but also by international business, which is already reassessing the country's role in global supply chains. "Xi's failures to prepare for reopening will tarnish his authority and the party," predicted TS Lombard analysts Lawrence Brainard and Jon Harrison.

Zero-Covid served Beijing well earlier in the pandemic, when millions of lives were lost in other countries. In mainland China, the official death toll remains only 5,241, though experts dispute how the country classifies Covid deaths. But this year, as other countries vaccinated and reopened, the policy became a straitjacket on Chinese society and the economy.

In Beijing, to do anything — even get back into your own home — you needed a green code on the city's health app, which you maintained by testing at an official kiosk every one or two days. To avoid being confined to a hotel or disappearing into a quarantine camp, I stopped going anywhere that required the app, riding bicycles instead of catching cabs and ordering food online. Judging from Beijing's quiet roads, everyone else was doing the same. As I talked to more people, it became clear that while many feared Covid, they were impatient with the restrictions. One parent recounted how she had not seen her daughter who was studying overseas for nearly three years.

But these were the last throes of a dying system. Perhaps concerned about the country's slowing economy, or the cost of the testing apparatus itself, in late November the government began to ease testing requirements. Without blanket testing, zero-Covid did not work. Omicron spread into residential compounds in Beijing and elsewhere across the country. Alarmed, the authorities moved to lock them down but residents resisted fiercely. Nationwide street protests erupted for the first time in decades.

While the demonstrations were short lived, the party could not win against millions of ordinary citizens ready to disobey lockdowns. Early this month, the government capitulated. Positive cases could now isolate at home and you no longer needed the healthcode to enter most places. Zero-Covid was replaced by "let it rip".

But as the *Dabai* vanished from the streets, coronavirus swept in. Friends and colleagues started catching it. Beijing became even more of a ghost town. China did not use the time bought by zero-Covid to import more effective foreign vaccines or to lift the vaccination booster rate among the elderly. While the state has now almost stopped testing altogether and is reporting absurdly low case and death numbers, the FT has uncovered evidence of a growing number of Covid-related mortalities.

On state media, however, Xi has already declared victory over the pandemic. The virus is little worse than the flu, according to government experts. Beijing has also changed the definition of what qualifies as a Covid death, ensuring the official number of fatalities will remain well below those of the west. Whether Beijing can maintain this narrative in the face of a giant outbreak remains to be seen. Even if the exit wave is quick, many will question why the government waited so long to end zero-Covid. "I hope the censors don't have Covid because they're going to need more of them now," joked one businessman.

As for me, the uncensored reality of the outbreak struck home earlier this month. Having dodged the virus for nearly three years, it was ironically in Beijing — Xi's zero-Covid citadel — that it finally caught up with me.

joe.leahy@ft.com

Opinion

Three ways Big Tech got it wrong

BUSINESS

Brooke Masters

It's time to unlearn the lessons of Big Tech.

For 20 years, the Silicon Valley giants and their peers have set the standard for corporate success with a simple set of strategies: innovate rapidly and splash out to woo customers. Speed rather than perfection, and reach rather than profits proved key to establishing dominant positions that allowed them to fend off, squash or buy potential rivals.

Entrepreneurs everywhere took note, and an assumption that scaling up and achieving profitability would be the easy part took hold far beyond the internet platforms where these ideas originated.

Investors, desperate for growth and yield amid historically low interest rates, were all too happy to prioritise the promise of growth over short-term earnings. During the pandemic, the trend became extreme, as the shares of companies with big dreams and equally large losses soared to dizzying heights.

Those days are over. Inflation and rising central bank rates have changed the financial calculus. When investors can earn measurable returns from bank deposits and top-rated bonds, speculative investments that promise growth lose their edge. The share prices of Google, Amazon and Facebook are down between 40 and 60 per cent year on year, and their younger emulators have done even worse. A Goldman Sachs index of unprofitable technology companies has fallen by 77 per cent since its February 2021 peak.

There is also a growing sense that most important challenges of our time — improving health, cutting carbon emissions, basically anything that involves a real world rather than purely digital product — will require a different approach.

Most of Big Tech got rich on software, which is easily updatable and basically free to distribute at scale. Such online innovation rightly places a huge premium on "failing fast": getting a product out quickly, building a following and fixing the bugs later.

The same is simply not true for a car, a medicine or a new flavour of packaged meat. They have to work correctly and meet regulatory standards right off the bat. Production facilities and distribution networks cannot be conjured out of thin air, or easily amended after the fact.

In the physical realm, an innovator can see its lead evaporate in the face of competition from rivals with experience in production and distribution. Tesla is discovering this the hard way. Tesla's share of the US electric vehicle market has dropped below 65 per cent from 79 per cent five years ago. S&P Global Mobility predicts it will fall below 20 per cent by 2025 as others bring out electric trucks and cheaper models faster than Tesla can build factories.

"The real world is just messier. Even if

> Too many digital service companies believed lockdown growth heralded a lasting uplift in revenues

you have a great car, you have to build it at a factory. You have to find land, you have to get it zoned. you have to find people. It's not something that can be A-B tested," says David Millstone, co-chief executive of Standard Industries, a private industrial conglomerate.

Standard's effort to take on Tesla's residential solar panel business is a case in point. After years of hype, Tesla was reportedly averaging 23 solar roofs a week earlier this year, or roughly 1,200 installations annually.

When Standard's second GAF Energy factory opens in 2023, it will produce enough shingles to clad 50,000 roofs a year. These cheaper solar shingles can also be installed by a conventional roofer with a nail gun rather than a specialist. Still, scaling up has not proved easy even for a company that is already the world's largest maker of roofing materials. Like much of corporate America, GAF has run into a labour shortage. So it has ended up having to start a training programme that prepares military veterans, people coming out of prisons and at-risk young people to work in the roofing sector.

The third big mistake that Big Tech emulators have made has been to assume that first-time customers would stick around. Too many digital service and ecommerce companies believed that their rapid growth during pandemic lockdowns heralded a lasting uplift in revenues, rather than a one-time extraordinary bump that quickly subsided in the face of renewed competition. Pandemic high-flyers such as Zoom Video Communications, Delivery Hero and Peloton are among being brought back down to earth.

"In tech generally and software specifically the network effect is a potential source of advantage, but . . . the model of racing for share does not work in many other sectors," says David Garfield, global head of industries at AlixPartners.

Take the time to get the product right sounds a lot less exciting than "move fast and break things". But for most companies, in most sectors, it is almost certainly the ticket to more lasting success.

brooke.masters@ft.com

Sunak should fight the election on tax

POLITICS

Stephen Bush

Ewan White

Healthy political parties talk about the same things. This doesn't mean that the only functional political movements cluster around the centre ground, or that centrism is a good indicator of institutional order. After all, New Labour was a centrist political party but one riven by infighting and with a rule book that proved vulnerable to Corbynite takeover. Boris Johnson's government had a policy platform to the left of David Cameron's, but his Downing Street was a rotating clown show of continual reboots and lawbreaking parties.

What I mean is that, even if well-functioning political parties have wildly divergent solutions, they will talk about the same things because they are trying to run the same country facing the same set of problems. The UK, for instance, has an ageing population, which puts greater pressure on its healthcare system. It has a revanchist autocrat in its neighbourhood, which increases not only the demands on its own defence budget, but also the cost of energy. It is much better at educating young people than it is at reskilling its existing workforce. And, in addition to the challenges besetting countries the world over, it has erected new and heavy barriers with its nearest trade bloc.

Almost by definition, some of these problems will have radical solutions, and not all of those will be found within the confines of one political party or another. This is why Jeremy Hunt, one of the government's most effective politicians, has brought in Patricia Hewitt, a Blair-era health secretary, to advise on NHS efficiency, while Michael Gove, the government's most effective reformer, drew and expanded upon New Labour's school reforms, while New Labour itself borrowed freely from its Conservative predecessors.

But when both government and opposition are in good health, politics tends to favour the government, because the ruling parties can point to the things they are already doing to tackle the problems facing the country. All opposition parties can do is offer a risky change to the status quo.

Parties lose office for many reasons, one of which is simple bad luck: they collide into a global financial crisis, a pandemic or a war. Changing the status quo is less of a risk when the status quo is awful. But another major reason is that over time, almost all parties tend towards dysfunctionality. They respond to events not by talking about the actions needed to tackle them but by talking about the hobby horses their party wants them to pursue. Already, some Conservatives are grumbling that Hunt used his first fiscal event to raise taxes (not to mention recruiting a former Labour minister), rather than to cut them.

> Failed political leaders start to meet their internal critics halfway and then end up in a muddle

Politicians can't choose the circumstances they govern in, but they can choose how they respond to them. Do they respond by talking about their own preoccupations, or by taking the necessary action to meet the challenges they face? While the UK's tax system is far from perfect, it is, to put it mildly, unclear what "tax cuts" will help the country meet its increased defence obligations, recruit sufficient numbers of paramedics and nurses or overcome the series of hurdles in its way.

One reason why Rishi Sunak is the best available candidate to lead the Tories is that he is uniquely placed to straddle both divides. His natural political instincts — on the Channel crossings, on Brexit, on the UK's climate target, on lockdown, on tax cuts — all incline him towards the party's right. But he has shown a willingness to govern according to the circumstances he finds himself in, rather than according to the circumstances he would like to have.

The question, though, is how he responds when — as he inevitably will — he faces demands for change from his party's right flank next year. While healthy political parties talk about the same things, failed political leaders also tend to act in the same way: they start to meet their internal critics halfway and then end up in a muddle.

Sunak already shows signs of this. Without a serious plan to end the recruitment and retention problems that are driving nurses and paramedics to either quit the health service or to go on strike, he runs the risk of becoming the candidate of high taxes and poor public services. One dangerous argument being made in private, and with real pull among some of his most influential ministers, is that the party should present its current measures as an unhappy transition to a more traditionally Conservative government.

The problem with that argument is that it is both implausible and untrue. The greater demands on the UK's defence and healthcare budgets aren't going away next year, and nor are at least some of the costs of the energy crisis.

What Sunak can, and should, do instead is meet the challenges he faces head on by saying that, yes, his government is one that will have to raise taxes and keep doing so. This is in order both to respond to the international challenges of Vladimir Putin's war but also to the domestic ones of greater demands on public spending. But — and this is the part he should make clear to both his party and voters — the choice is not between him and some mythical tax-cutting Conservative, but between his reluctant and as-moderate-as-possible tax increases, and those of a Labour party whose tax rises are never reluctant.

stephen.bush@ft.com

2022 A year in a word / *n.*

Inflation
(noun) a sustained rise in the level of prices

Inflation regained its position as the enemy of economic progress this year after a 40-year absence. With the rate of price increases hitting peaks close to 10 per cent in the US, eurozone and UK, a generation has had to worry about a rapidly rising cost of living for the first time in their working careers.

They have hated it.

US president Joe Biden classed inflation as "the bane of our existence", making its defeat his top economic priority. He released the US strategic petroleum reserves in a bid to bring oil prices down. In Europe, leaders first blamed Vladimir Putin's invasion of Ukraine and then, realising they had to do more, subsidised energy bills to take the sting out of a cost of living crisis.

Central banks could no longer claim to have given birth to a "great moderation" in inflation and instead have joined together in battle against the beast. They have done this with some of the sharpest and most synchronised rises in interest rates across the world for two decades.

The unspoken effect of tighter monetary policy is to make households and companies suffer more because they are too frightened to keep asking for higher wages or to expect their customers to accept higher prices. High prices in 2022 are therefore likely to be the catalyst for recessions in 2023 even as headline rates of inflation start to fall.

For the future, economists have relearnt the need to fear inflation and prevent its emergence. Those arguing that central banks should target higher inflation rates of about 4 per cent have (partially) recanted. While it is impossible to stop every surge in prices, especially after a pandemic or a major war, the rise in general inflation in 2022 has once again highlighted the benefits of price stability.

chris.giles@ft.com

Central Asia emerges gingerly from the shadow of Russia

WORLD AFFAIRS

Tony Barber

In its 19th-century heyday, the tsarist empire bestrode central Asia in seven-league boots. In Soviet times, Russia's footprint on the vast region became even heavier. Now, largely because of Vladimir Putin's misfiring war of conquest in Ukraine, the countries of central Asia are emerging from Russia's shadow and asserting their independence in ways not seen since the collapse of communism in 1991.

All five states — Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan — are acting with caution. Russia's military, political, economic and cultural influence remains strong in the region. It is unrealistic to expect a radical strategic realignment of the central Asian states towards China or the US, let alone the EU or Turkey.

Nor should the careful distance which central Asian leaders are establishing between themselves and Putin be mistaken for internal liberalisation. Unfettered political competition is conspicuous by its absence in a region ruled by conservative strongmen. Regime fears of social unrest are well-founded, as shown by violent protests this year in Kazakhstan and Uzbekistan. Presiding over predominantly Muslim societies, the region's autocrats worry about the possible spread of militant Islam from Afghanistan after the withdrawal in 2021 of US forces and the Taliban's takeover.

The craving for democracy and integration into western alliances visible in former Soviet republics such as Georgia, Moldova and Ukraine is therefore not replicated in central Asia. All the same, Putin's invasion means that in the leaders' eyes, Russia no longer looks like a reliable guarantor of order in the region — and at worst it may turn into a threat.

On one hand, they are concerned that the Russian attack on Ukraine in February, followed seven months later by Putin's proclaimed annexation of four Ukrainian regions, may portend aggressive intentions towards them. This is especially true for Kazakhstan. The largest central Asian state in terms of territory, its 19mn people include almost 3mn ethnic Russians concentrated largely in northern regions adjoining Russia.

When he announced Ukraine's dismemberment, Putin spoke ominously of the supposed determination of millions of Russian-speakers living beyond Russia's borders "to return to their true historical homeland". Eight years earlier, Putin cast doubt on the legitimacy of Kazakh statehood and suggested it was in the interests of Kazakhs "to remain in the greater Russian world". This theme is dear to the hearts of Russian ultra-nationalists, such as the activist who two years ago hung a banner on the Kazakh embassy in Moscow that proclaimed: "Northern Kazakhstan is Russian land."

> The country no longer looks like a guarantor of order in the region — and it may turn into a threat

On the other hand, Russia's difficulties with its war against a Ukraine strongly supported by the west makes it appear less capable of upholding stability in central Asia. The transformation has been swift. A month before the invasion of Ukraine, Putin asserted the Kremlin's authority by sending troops into Kazakhstan under the auspices of the Collective Security Treaty Organisation, a Russian-led military bloc. The action came at the request of Kassym-Jomart Tokayev, Kazakhstan's president, who was seeking to quell unrest in which over 200 were killed.

In the light of Russia's attack on Ukraine, Tokayev appears unlikely to repeat any such invitation. But when clashes erupted in September between Kyrgyzstan and Tajikistan, neither Moscow nor the CSTO was willing or able to calm the trouble. In frustration the Kyrgyz leadership cancelled CSTO military exercises due to take place in October.

Emomali Rahmon, the Tajik president, was no happier. At a Russian-central Asian summit, he launched into a long verbal attack on Putin for treating the region's countries as if they were still "part of the former Soviet Union". Meanwhile, Uzbekistan this month declined to take up Moscow's proposal to form a "natural gas union" with Russia and Kazakhstan.

Central Asian leaders are at pains not to antagonise Moscow too much. Far from publicly condemning the invasion of Ukraine, Kazakhstan, Kyrgyzstan and Tajikistan abstained in March from a UN vote on the topic, while Turkmenistan and Uzbekistan stayed away altogether. The aim of all five states is to avoid being sucked into blocs and to preserve independence and stability.

As the tsarist takeover of central Asia proceeded by leaps and bounds in the 1860s, Prince Alexander Gorchakov, Russia's foreign minister, observed in a minute circulated to other European powers that "the greatest difficulty consists in knowing how to stop". These days, Russia's greatest problem may be how to maintain the regional influence it has enjoyed for well over a century.

tony.barber@ft.com

Lex.

Twitter: @FTLex

Financial trends

China property: structurally unsound

How much will it cost to fix China's housing system? Through next year developers will owe debts exceeding $300bn. Assuming property prices fall at the current rate, analysts believe a rescue would cost as much as $1.1tn.

The slide in Chinese property prices and stocks was one of five dominant financial trends that started this year. They will rumble on through 2023.

China Evergrande Group led the rout. House prices have fallen every month since it first showed signs of trouble in 2020. Banks and developers will feel the true impact in 2023.

In November, shares of developers rallied when regulators said they would allow developers to access some presale housing funds. That permitted construction to resume on some 2mn unfinished homes pre-sold by developers. Building costs had forced them to default on loans.

State support helps developers access fresh presale funds. But that presumes China's highly leveraged model, long the foundation of the construction sector, will continue.

This means developers often sell houses long before construction. They use presale funds to acquire more land at steep prices. They start many projects while committing little capital. Banks contribute to the speculation with mortgages on unbuilt properties.

The system can resemble a Ponzi scheme. The music goes on playing when demand for new homes keeps growing. When it falters, and prices fall, the developer is in a bind.

But shifting away from this creates problems of its own. Developers would shoulder extra funding costs of about 30 per cent by moving to an after-construction sales model. Funding costs for developers would increase by about 30 per cent. Smaller private developers would risk falling behind. Their state-owned peers have access to much cheaper financing.

Moreover, mainland and Hong Kong developers have diversified into each other's markets to hedge risk. That strategy may no longer work. In 2023, Hong Kong home prices are expected to fall as much as 30 per cent, as rising interest rates increase the number of negative equity mortgages. Beijing has a big fixer-upper on its hands.

Chapter 11: plenty to come

US bosses joke that they cannot afford to go bankrupt. Legal fees are steep. A threshold was crossed in 2022. Filings revealed that Paul, Weiss would charge more than $2,000 an hour for its work for Revlon. The firm has been representing the group in Chapter 11 proceedings. Junior legal team members just a couple of years out of law school were expecting to bill more than $1,000 per hour.

Most companies are choosing to restructure their debt outside bankruptcy. The preferred method is through distressed exchanges. Lenders and bondholders swap old paper for new, typically with a lower face value. That allows the company to delever its balance sheet. The lower nominal value is typically balanced by a higher interest rate or other new protections.

Senior lenders are swallowing discounts in restructurings and bankruptcies that are greater than ever. Loose credit requirements have allowed opportunistic groups of lenders to seize collateral from first-lien debtholders. The transactions are known as "uptiering" or "dropdowns".

Moody's says recoveries for first-lien debt have historically been about 76 per cent in debt restructurings. The data group projects that the figure will end up lower in this current cycle.

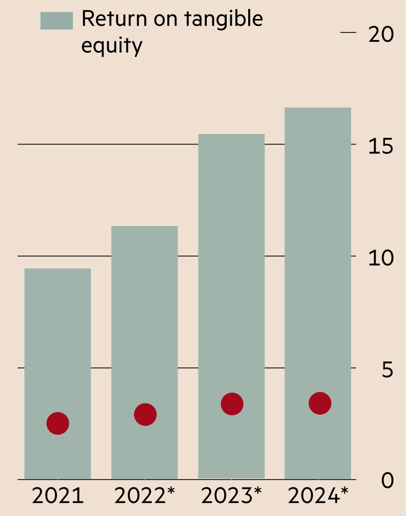
The Revlon bankruptcy is known for Citi, a loan administrator for the group, mistakenly wiring a $900mn repayment to lenders, several of which did not return the money. They were aggrieved enough to keep the cash because of a previous Revlon restructuring. Here, their collateral had been snatched, depressing the value of the loans they held. They reached a settlement with Citi as the working year ground to a close.

Messy disputes between lender groups about priority and collateral claims are best resolved via bankruptcy proceedings. But big costs accrue. Higher interest rates, lower growth and resulting distress will ensure that Paul, Weiss and its law firm rivals have a lucrative 2023.

The great rotation: value vigilantes

The stock market correction in the US and Europe has pulled down growth stocks more than value equities. Both are trading much closer to their 10-year averages. Banks have benefited from higher interest rates, which have lifted their net interest margins.

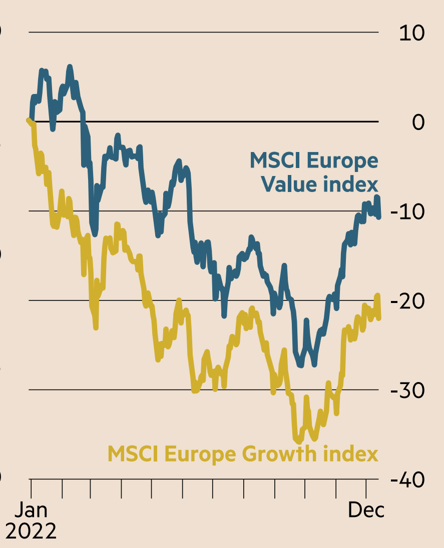
NatWest is set to benefit from higher interest rates



*Estimate
Source: Consensus estimates compiled by NatWest

Value has outperformed growth

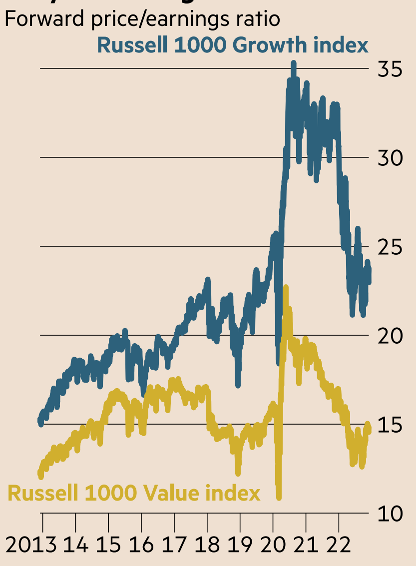
Index value



Source: S&P Capital IQ

Value multiples are close to the 10-year average

Forward price/earnings ratio



Source: S&P Capital IQ

In the era of low interest rates, value investors felt as lonely as singletons dining out on Valentine's night. But this investment style — backing stocks that look cheap relative to near-term earnings — has attracted quite a crowd in 2022. The rotation to value reflects the view that, as in the 1970s, such stocks do well in inflationary times.

As interest rates rose, investors cooled on growth stocks that promised future profits and warmed to those making — and paying out — large sums. They have sought to avoid the impact of the downturn on stock prices via some key metrics. These include low price/earnings ratios, high book value-to-price ratios and generous dividend yields.

The MSCI Europe value index — containing companies such as Shell, Novartis and Unilever — is down 10 per cent. That compares with a 24 per cent fall for the MSCI growth index. The Russell 1000 value index of US stocks is down 10 per cent since January. That is just one-third the drop of its growth counterpart.

Value indices are tilted towards energy companies and retail banks. The former have been boosted by surging fuel prices, the latter by the rise in rates.

For example, fatter net interest margins at NatWest are expected to produce a hefty return on tangible equity of 14 to 16 per cent in 2023.

Looming recession complicates the picture by hitting earnings and limiting future interest rate rises. NatWest's bigger-than-expected provisions sent its shares down by as much as 9 per cent in October.

Despite value stocks' recent outperformance, they are not expensive by historical standards. The price/earnings ratio of the Russell value index is close to its long-term average of 16.

However, the darkening economic outlook has increased the appeal of capital-preserving defensive stocks. That is stealing some of the limelight from the value-versus-growth trade.

Cheap stocks can go on getting cheaper if they produce disappointing results. Markets will remain unsettled in 2023.

UK government debt: survivor's gilt

Gilts are named after the gilded edge of old-time UK government debt certificates. This signified the highest credit and absolute safety.

That status was put to the test earlier this year by the short, chaotic premiership of Liz Truss. Yields soared after her ill-judged spending plan triggered intervention by the Bank of England to prevent a bond market meltdown.

The appointment of Rishi "Safe Hands" Sunak as prime minister has all but removed the fiscal risk premium gilts bore then. The outlook for gilts is now more likely to be decided by genuine macroeconomic factors than "unconventional" economics.

Measured by the spread of 10-year gilts over German Bunds, the risk premium peaked at 225 basis points in late September 2022. It has since fallen back 115bp. That leaves it in line with the average for the past two years. Inflation, real and expected, is likely to resume a bigger role in driving yields hereon.

Expect a weakening economy to take much of the heat out of spiralling prices. These rose on average by 9 per cent during 2022. With interest rates already at the highest level in more than a decade, slowing growth should drag prices lower. The consensus among economists is for average real GDP growth of -0.9 per cent next year with inflation falling to 6 per cent.

That is taking pressure off the BoE to raise further. Policy rate expectations have slipped from more than 6 per cent during the height of the pension crisis to an expected peak of 4.7 per cent at the end of 2023. Tighter fiscal conditions, with about half of a £50bn budget hole to be plugged by tax rises, will damp inflationary forces further.

In the best of all possible worlds, that should mean bond yields will continue to fall. Risks linger. A wage-price spiral could continue to drive yields higher even as the economy weakens. Further shocks to supply cannot be ruled out. But at least the UK's creditworthiness has regained some of its old glitter.

US listings: whack-a-Spac

The two-year boom in special purpose acquisition companies turned to bust in 2022. Rising interest rates, a sharp stock market sell-off and heightened regulatory scrutiny doused cold water on Wall Street's torrid love affair with Spacs. These blank-cheque listing vehicles raised $16bn for the year to December 19. That compares with $250bn investors poured into them during 2020 and 2021.

The relationship is unlikely to regain its spark next year. Spacs are time-limited. They usually have two years to use their funds to make an acquisition before they have to return the money to investors — with interest. At the moment there are far too many Spacs chasing too few deals. Over 650 Spacs with a combined pool of $159bn of IPO capital are looking for a merger target, according to an estimate from the London Stock Exchange Group.

Spacs can request an extension. Some will. Many will opt to liquidate. Some 22 liquidations have been announced in the first three quarters of 2022. Investors including Chamath Palihapitiya and Bill Ackman are among those who have thrown in the towel. Spac tie-ups that were struck when the market was stronger are falling apart, with 51 mergers cancelled this year, says LSEG. Investors are not missing much. Spacs were once touted as a way for the average investor to invest in hot, unlisted companies. In reality, most post-merger Spacs have performed poorly.

Companies that completed deals this year have tanked. They chalked up an average loss of about 49 per cent for the first nine months of the year, according to Spac Research. The S&P 500 index lost 25 per cent over the period.

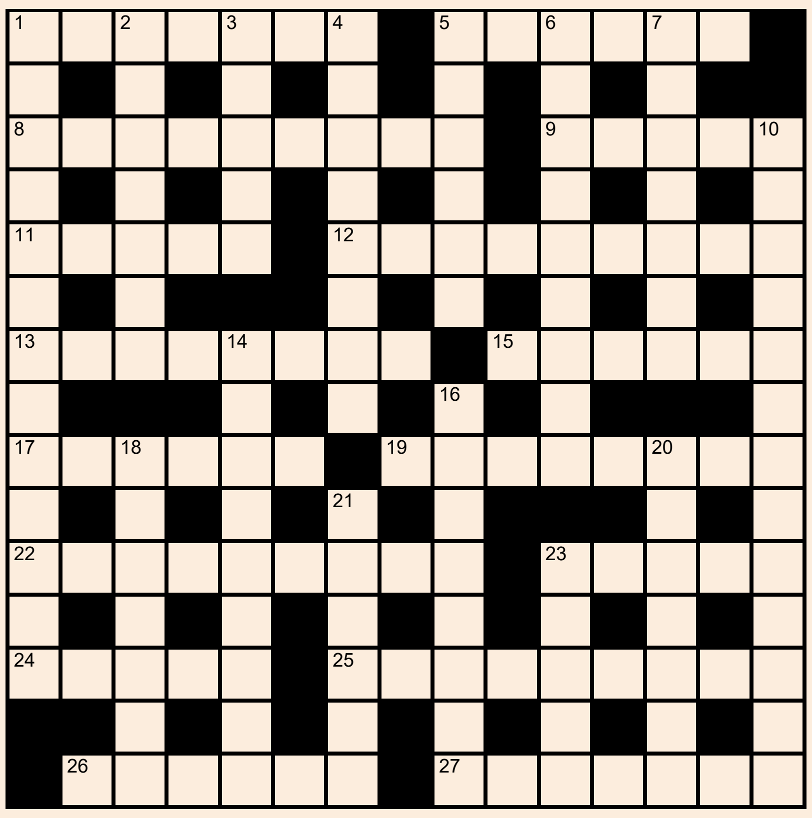
For investors, having Spac sponsors return their money in full with a bit of interest on top may well be a blessing in disguise. Some may be inclined to redeem their money sooner to avoid being hit by new tax rules on share buybacks. Sponsors will be left holding the bag.

FT **Lex on the web**
For notes on today's stories go to **www.ft.com/lex**

NIKKEI Asia The voice of the Asian century

CROSSWORD

No 17,291 Set by GURNEY



ACROSS

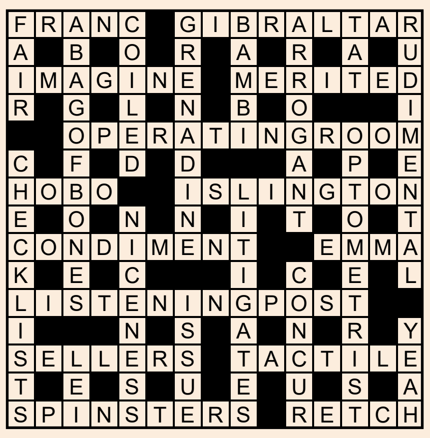
1 Order to appear Monday featuring in calculations (7)
5 One's prepared to welcome returning soldier, well-groomed (6)
8 Simple housing as alternative to extremely choice in China (9)
9 Fleshy fruit, pleasing initially (5)
11 With no support at the outset, call time on period in charge (5)
12 Source of flavour in foreign pantries impressing Monsieur? (9)
13 Odd bet, yearly after vacation, could make 1950s guy (5,3)
15 Article by artist? Right to a certain degree (6)
17 Channel showing leading couples in training, English champions (6)
19 See where money is held in centre of seafarer ships (8)
22 Fielder's error and downfall (9)
23 National misread quip — nothing odd in that (5)
24 Large group from South, cordial (5)
25 Unexpected gratuities European left for musician (9)
26 Call, ultimately dodgy and not genuine (6)
27 Eg corgi, lively, in this rural poem? (7)

DOWN

1 In play, strip out issue having no basis in reality (13)
2 Mike came after Victor's gone with a partner (7)
3 Huge quantity of copy, editor annoyed naturally at first (5)
4 Speaks sharply, furious, in quick appraisal (8)
5 Sort of pudding divided by Poles in final stage (6)
6 Key incoming item needing worker's support (9)
7 Feed sorted out in hours (7)
10 Sort of management pattern, heartless, top people in charge? (13)
14 He has many chats at sea? (9)
16 150 having fun (8)
18 Setter in conversation with tree? Nonsense (7)
20 Having reversed direction, Berkshire team ahead (7)
21 Rugged — shout about recycled gag (6)
23 Insect victim, a goner? Not entirely (5)

JOTTER PAD

Solution 17,290



You can now solve our crosswords in the new FT crossword app at ft.com/crosswordapp

Get the business insights you need to succeed in Asia
Visit asia.nikkei.com